



City of Seattle

Paul Schell, Mayor

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MWLSF

Seattle Public Utilities

Diana Gale, Director

June 7, 1999

Ching-Pi Wang, Project Manager
Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue S.E.
Bellevue, Washington 98008-5452

RE: Midway Landfill Final Remedy
Final Construction Report and Documentation pursuant to
Consent Decree 90-2 13283 8

Dear Mr. Wang:

Introduction

This Final Construction Report compiles the Final Project Reports and the Approval for the Operation and Maintenance Manual for Midway Landfill pursuant to Consent Decree 90-2 13283 8. This report constitutes the City of Seattle's final construction and operations submittal under the Decree, and completes all actions required by the Decree. Accordingly, the City requests written certification from Ecology that the Work to be Performed pursuant to the Consent Decree as been completed. This certification is required in Section XXXVI of the Consent Decree.

Ecology and the City of Seattle also are currently preparing a Cleanup Action Plan (CAP) for groundwater, with the expectation that it will be submitted for public comment during the summer of 1999.

Finally, this Final Construction Report and the monitoring components of the CAP are designed to meet substantive requirements of landfill closure under Minimum Functional Standards.

Completion of Consent Decree Work

The Work to Be Performed Section (Section XI (B) of the Consent Decree requires the City to complete four actions under the Decree:

1. Construction of a multi-layered landfill cover system. Construction was initiated in October 1989 and substantially completed in May 1991 with final completion in August 1991.
2. Construction of a permanent manifold piping system connecting the on-site gas extraction system to the permanent motor and flare system. Construction was included in the construction of the final landfill cover, and was substantially completed in May 1991, with final completion in August 1991.

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Mr. Wang
June 7, 1999
Page Two

3. Submission of Final Project Reports for each remedial construction project. The last of these reports was submitted to Ecology in January 1992.
4. Preparation of a comprehensive Operation and Maintenance Manual. This manual was approved by Ecology in April 1992.

Based on discussions with Ecology, the completion of the RI/FS, and almost ten years of monitoring data, the actions taken at Midway Landfill to date constitute the Final Remedy under the Consent Decree, and conclude the Work required under the terms of the Consent Decree.

Cleanup Action Plan

The State has requested that the City prepare a Draft Cleanup Action Plan to establish cleanup levels, point of compliance, and long-term monitoring requirements for groundwater. This plan is currently being prepared.

Landfill Closure under Minimum Functional Standards

This report also meets the substantive requirements for reporting of final landfill closure under Minimum Functional Standards for Solid Waste Landfills (WAC 173-304-407 (5)(d)). Specifically, it contains as attachments (described below) the following:

- I. Facility closure plan sheets signed by a professional engineer (P.E.) registered in the State of Washington and modified as necessary to represent as-built changes to the final closure construction as approved in the closure plan;
- II. Certification by the owner or operator, and a professional engineer (P.E.) registered in the State of Washington that the site has been closed in accordance with the approved closure plan.

The substantive requirements are met with the following understandings:

- (1) Construction plans and specifications approved by Ecology pursuant to Consent Decree 90-2 13283 8 serve as the closure plan for Midway Landfill;
- (2) "As-builts" submitted to Ecology as part of the Final Engineering Reports for construction actions under the Decree serve as the Facility closure plan sheets; and
- (3) Approvals by Ecology serve as approval of both the closure plan and final closure.

Mr. Wang
June 7, 1999
Page Three

Documentation

The attached documents and plan sheets have been compiled from the project files for your convenience.

Sincerely,

Jeff Neuner

Jeff Neuner
Landfill Closure Operations

JN/TAF/lh

attachments

CC: David Hickok, Seattle-King County Public Health Department
Vernor Connally, Director of Solid Waste Field Operations
Peter E. Hapke, Seattle City Attorney's Office

Final Engineering Report Attachments

**ATTACHMENTS RE: FINAL PROJECT REPORTS FOR PROJECTS INCLUDED
IN APPENDIX B OF THE 1990 CONSENT DECREE , NO. 90-2 13283 8.**

1. Appendix B from the 1990 Consent Decree , NO. 90-2 13283 8 (the Decree)

2. As-Built Plan Sheets with P.E. Stamp

Project	Original Design Date	As-Built Revision Date
Midway Landfill Closure Off-site Drainage w/HWY 99	March 9, 1988	August 16, 1989
Midway On-Site Grading and Drainage	August 4, 1987	November 30, 1990
Midway Landfill East 1-5 Pump Station	May 22, 1989	December 6, 1990
Midway Landfill Gas Migration Control System Blower/Flare Facility	May 18, 1988	December 7, 1990

3. Letter from Ms. Lin Robinson, City of Seattle Midway Program Manager to Mr. Russ Darr, Department of Ecology Project Manager, dated July 27, 1990. This letter constitutes the Final Project Report for the four remedial construction projects already completed at the Midway Landfill, per Section XI (B) (3) of the Decree.

**ATTACHMENTS RE: FINAL PROJECT REPORTS FOR WORK TO BE PERFORMED
(SECTION XI (B) OF THE DECREE)**

- 1. Work to be Performed Section of the Scope of Work Language from the Decree
(Section XI (B)).**

- 2. As-Built Plan Sheets with PE Stamp**

Project	Original Design Date	As-Built Revision Date
Midway Landfill Final Cover System (includes the final gas manifold system)	July 26, 1989	November 4, 1992

- 3. Letter from Mr. Jeff Neuner, City of Seattle Landfill Closure Operations to Mr. Ching-Pi Wang, Department of Ecology Project Manager, dated January 9, 1992.** This letter constitutes the Final Project Report for the Final Cover, including the gas manifold system, construction project completed at the Midway Landfill, per Section XI (B) (3) of the Decree.
- 4. Letter from Mr. Herbert Johnson, P.E., City of Seattle Engineering Services to Ms. Barbara Taber, City of Seattle Contracting Services Administrator dated April 6, 1993.** This letter presents the final engineering approval of the As-Builts for the Midway Landfill Final Cover System.
- 5. Letter from Mr. Ching-Pi Wang, Department of Ecology Project Manager to Mr. Jeff Neuner, City of Seattle Landfill Closure Operations, dated April 20, 1992.** This letter accepts and approves the Operation and Maintenance Manual for Midway Landfill.

ATTACHMENTS

RE: FINAL PROJECT REPORTS

FOR PROJECTS INCLUDED

in Appendix B of the 1990 CD.

Appendix B

1. Gas Extraction System:

- o Midway Landfill Gas Migration Control System, Blower/Flare Facility
 - o Design Drawings (May 1988); Vault Plan No. 870-175
 - o Project Manual, including construction specifications, construction contract, and all amendments and change orders (June 1988)
 - o Midway Landfill Blower/Flare Facility Design Criteria Report (Prepared for the City of Seattle by Parametrix, Inc., September 1987)

2. Surface Water Management Projects

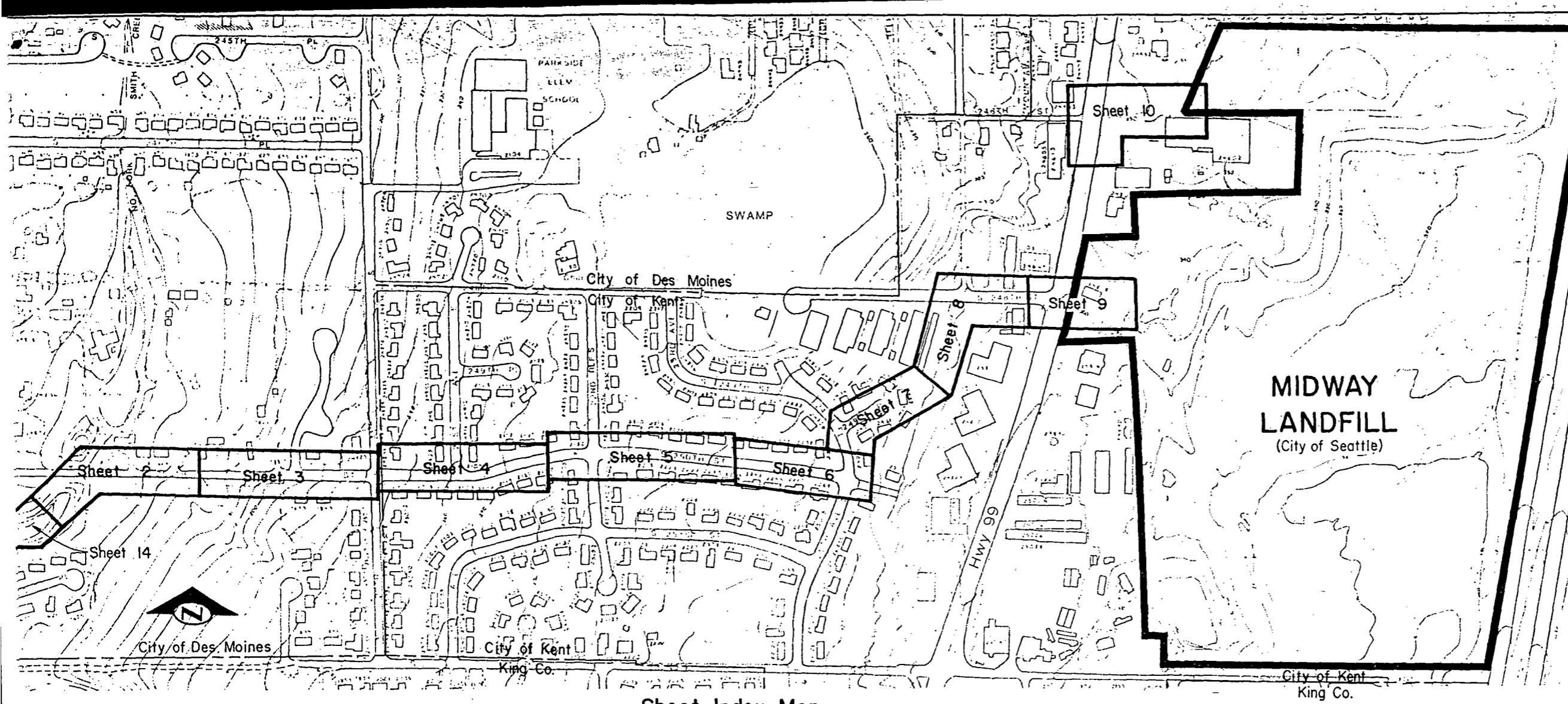
- o Surface Water Management Plan (Prepared for the City of Seattle by Parametrix, Inc., June 1987)
- o Midway Landfill On-Site Grading and Drainage Project
 - o Design Drawings (August 1989); Vault Plan No. 774-20
 - o Project Manual, including construction specifications, construction contract, and all amendments and change orders (June 1988)
 - o Quality Assurance Plan for Construction Management of Midway Landfill Closure Stormwater Detention Pond (October 1988)
- o Midway Landfill Closure Off-Site Drainage with Highway 99 Project
 - o Design Drawings (March 1988); Vault Plan No. 774-23
 - o Project Manual, including construction specifications, construction contract, and all amendments and change orders (April 1988)

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Appendix B to Midway Consent Decree
Page 2

- o Midway Landfill Closure East I-5 Pump Station Project
 - o Design Drawings (May 1989); Vault Plan No. 777-422
 - o Project Manual, including construction specifications, construction contract, and all amendments and change orders (June 1989)
- 3. Landfill Cover/Final Gas Manifold System Project
 - o Technical Memorandum for Midway Landfill Final Cover And Gas Collection System, Evaluation of Alternatives (Prepared for the City of Seattle by Parametrix, Inc., March 1989)
 - o Addendum One to the Technical Memorandum for Midway Landfill Final Cover and Gas Collection System, Evaluation of Alternatives (Prepared for the City of Seattle by Parametrix, Inc., May 1989)
 - o Summary of Geotechnical Studies, Final Cover Project Midway Landfill Closure, Kent, Washington (Prepared for the City of Seattle and Parametrix, Inc. by Rittenhouse-Zeman and Associates, June 1989)
 - o Design Drawings (July 1989). Subject to revision for the addition of one foot of clayey silt or silty clay, as per Section XI.B of the Consent Decree; Vault Plan No. 782-177
 - o Project Manual, including construction specifications, construction contract, and all amendments and change orders (July 1989). Subject to revision for the addition of one foot of clayey silt or silty clay, as per Section XI.B of the Consent Decree

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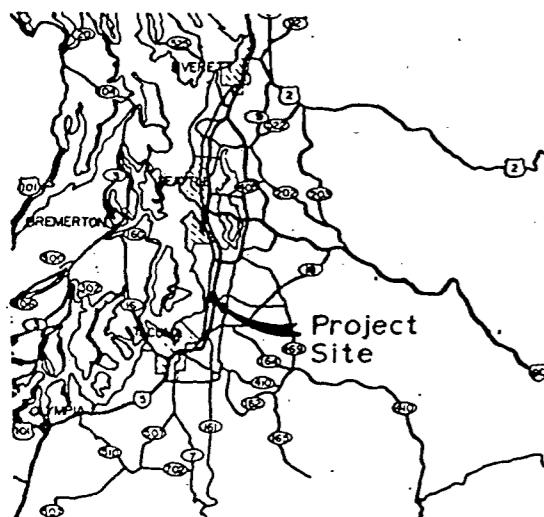
Sheet Index Map

Scale: 1"=200'

General Notes

Unless Otherwise Specified:

- It shall be the Contractor's responsibility to contact the utilities within the construction area to verify the location of existing facilities. "One call" to 1-800-424-5555, 48 hours prior to digging (excluding weekends and holidays) will relay a message to the utility companies. For Des Moines Sewer District, call 824-4960.
- Horizontal Survey Control - Assumed coordinates of aerial target HV-7 (N 10,000 and E 10,000), located on S 252nd St., were provided by the City of Seattle Engr. Dept.
- Datum Elevation of aerial target HV-6 (376.20), located on S 252nd St., was provided by the City of Seattle Engr. Dept.
- The geotechnical report, including test data, for soil borings is attached to the Special Provisions.
- Aerial photography and photogrammetry are based upon photography performed Feb. 24, 1987 by Walker & Assoc. and do not reflect changes made subsequent to that date.



Vicinity Map

Sheet Index

Sheet No.	Description
1	Vicinity Map, Sheet Index Map, Sheet Index
2-10	Storm Drain Plan & Profile
11	Structural Details
12-14	Misc. Details

Detail Referencing

(A) Detail reference letter
 (2) Sheet on which detail appears

Title (A) Detail reference letter
 (1) Sheet from which detail was taken

"AS BUILT" PER PLAN EXCEPT AS NOTED

Vic. Map, Sheet Index Map, Legend & Sheet Index

netrix, Inc.

100 1200 Northway, Suite 3
Bellevue, Washington 98005
424-2550



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3/1/88
Attest: *Barbara J. Tolson* CHAIRMAN
Executive Secretary PROJECT NO

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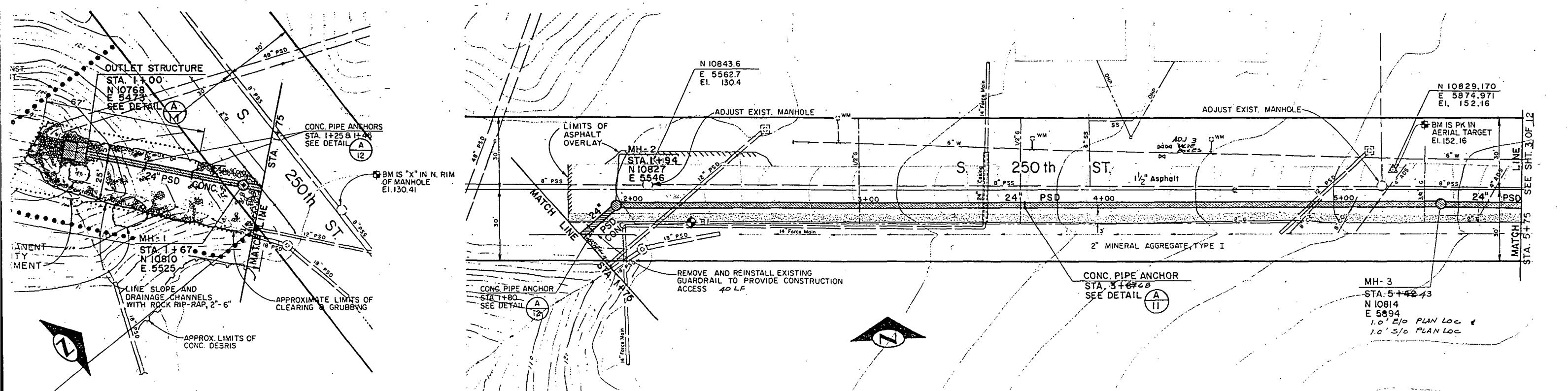
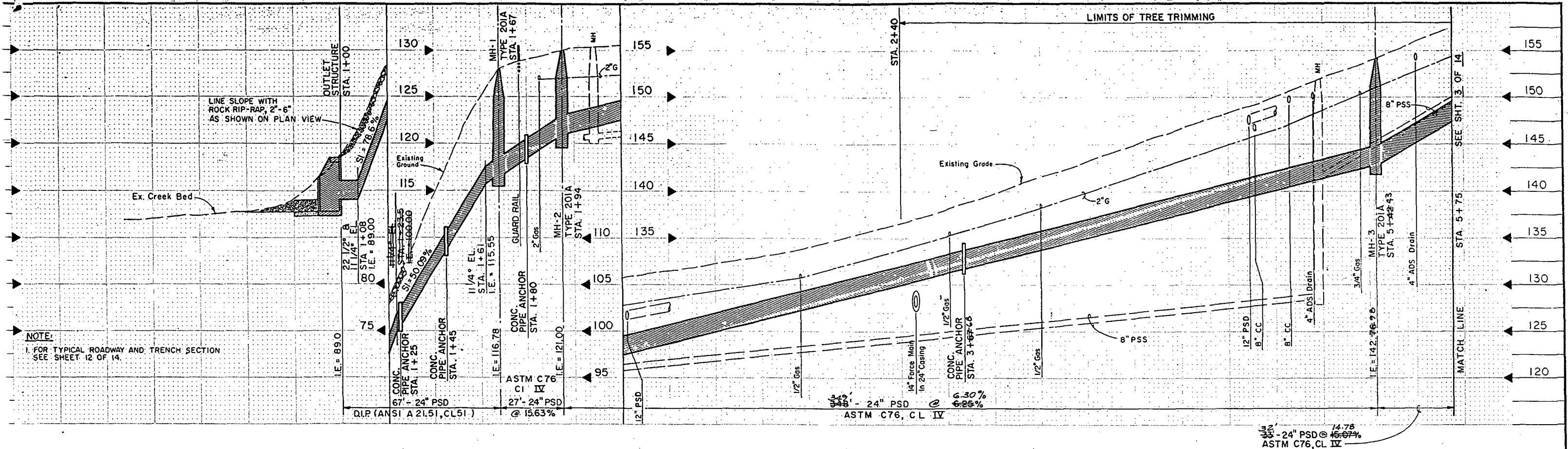
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VAVLT PLAN NO
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"AS BUILT" PER PLAN EXCEPT AS NOTED

Storm Drainage Plan & Profile



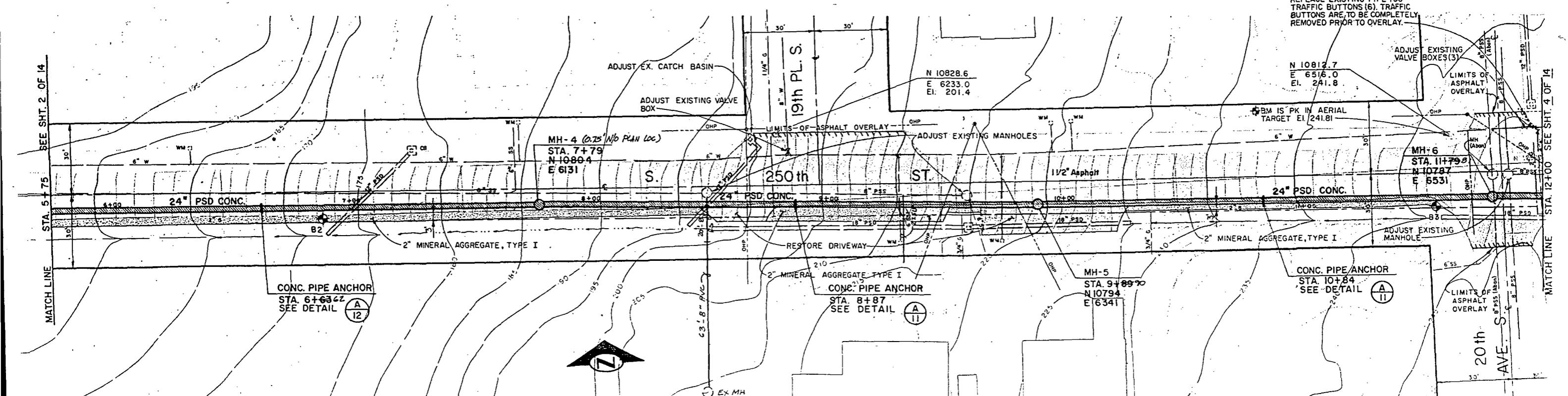
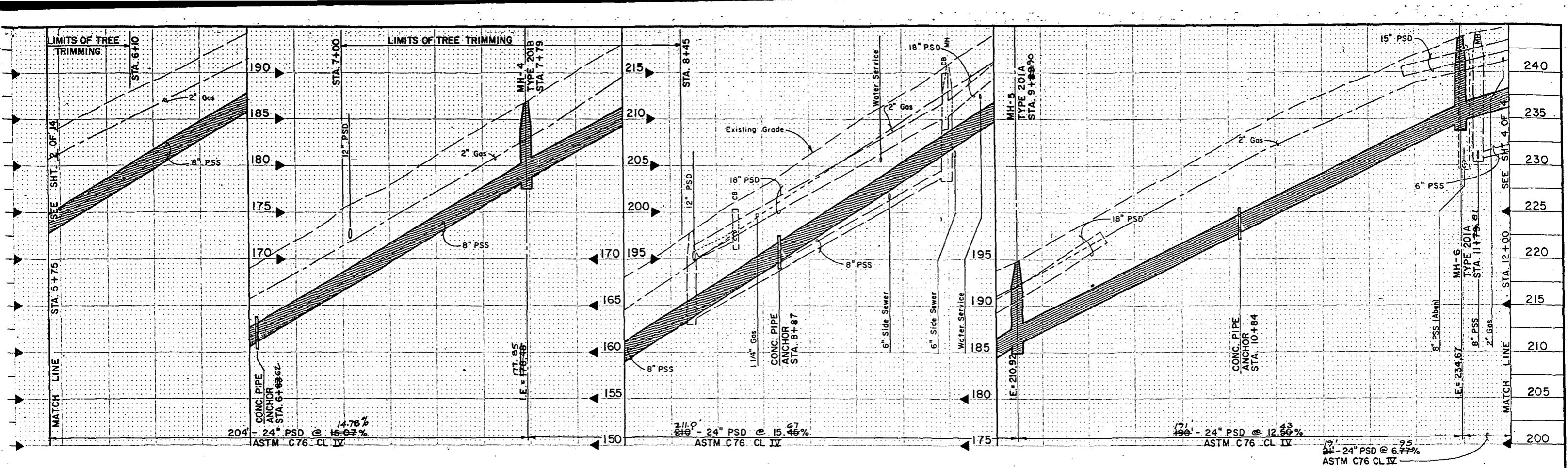
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Barbara J. Tolosa		PROJECT NO.	TRANS. SVC. PROJ. MGR. <i>[initials]</i>
EXECUTIVE SECRETARY		RECEIVED <i>[Signature]</i> 3/19/88	
		DESIGN REVIEW P.V.H. REVISED AS BUILT ABC.B-16-88	

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Barbara J. Tolosa		PROJECT NO.	TRANS. SVC. PROJ. MGR. <i>[initials]</i>
EXECUTIVE SECRETARY		RECEIVED <i>[Signature]</i> 3/19/88	
		DESIGN REVIEW P.V.H. REVISED AS BUILT ABC.B-16-88	

THE CITY OF SEATTLE
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ORDINANCE NO. 119200 APPROVED
FUND: *[Signature]* INSPECTOR'S BOOK NO.
SCALE: M. 1" = 20' 1" = 5' *[Signature]*

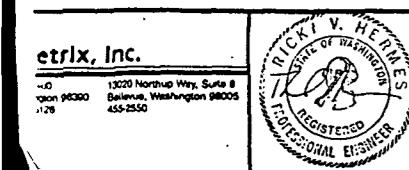
MIDWAY LANDFILL CLOSURE OFF-SITE DRAINAGE W/ HWY 99

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SHEET 2 OF 14	



"AS BUILT" PER PLAN EXCEPT AS NOTED

Storm Drainage Plan & Profile



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BY THE BOARD OF PUBLIC WORKS
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ATTEST: *Barbara K. Tolson*
EXECUTIVE SECRETARY
PROJECT NO.

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DRAWN CHECKED: <i>J. T.</i>	RECEIVED <i>Barbara K. Tolson</i> 3/18/88
DESIGN REVIEW: <i>J. T.</i>	REVISED AS BUILT ABC 8-16-87

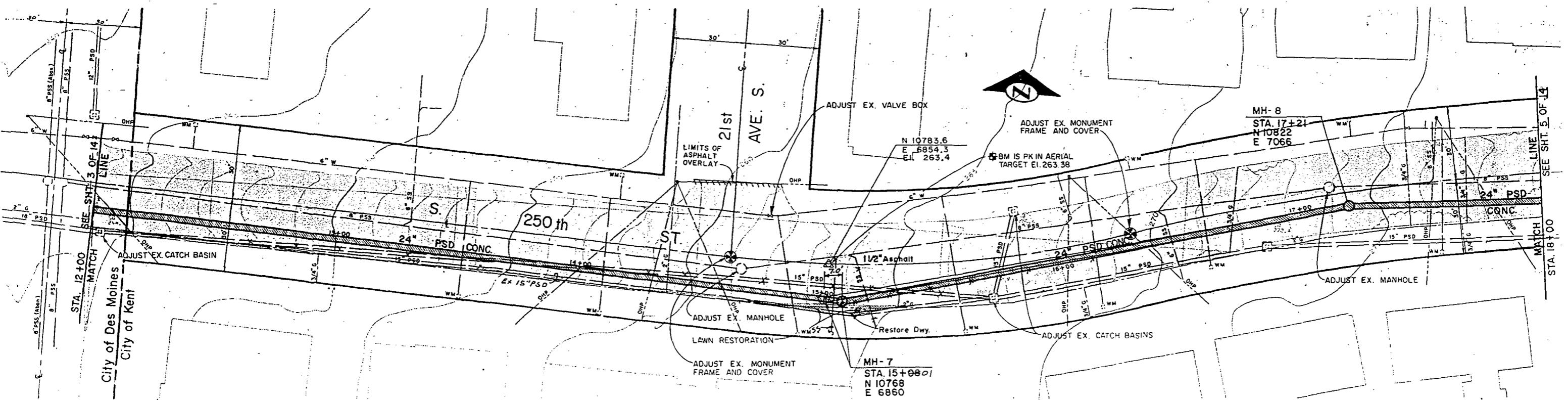
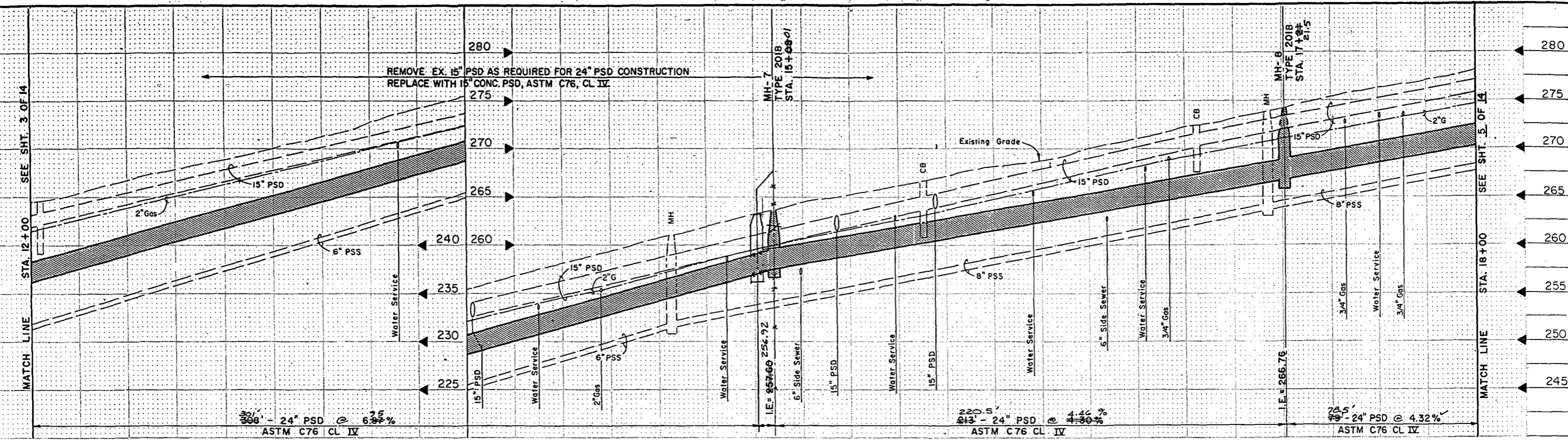
All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

THE CITY OF SEATTLE
DEPARTMENT OF ENGINEERING
ORDINANCE NO 113200
FUND: *Barbara K. Tolson*
SCALE: H. 1" = 20'. V. 1" = 5'
INSPECTOR'S BOOK NO: *Barbara K. Tolson*

MIDWAY LANDFILL CLOSURE OFF-SITE DRAINAGE W/HWY 99

PC	R/W.
CO	Vault Plan No: 774-23
SHEET 3 OF 14	Microfilm Filed 19

2i-1550-15-C-03



"AS BUILT" PER PLAN EXCEPT AS NOTED

Storm Drainage Plan & Profile

MIDWAY LANDFILL CLOSURE
OFF-SITE DRAINAGE W/HWY 99



etrix, Inc.

13020 Northup Way, Suite 8
Bellevue, Washington 98005-
455-2550

128

APPROVED FOR ADVERTISING
BY THE BOARD OF PUBLIC SAFETY
SEATTLE WASHINGTON

ATTEST: *Barbara J.*
EXECUTIVE SECRETARY

NAME OR INITIALS AND ADDRESS

WORKS DESIGNED

1988 CHECKED

DRAWN

CHECKED.....

DESIGN REVIEW *R&H*

All work done in accordance w

ATE | INITIALS AND DATE

REVIEWED:

DES. CONST.

TRANS. SVC..... PROJ. MGR/LAR

RECEIVED Decem 11 1942

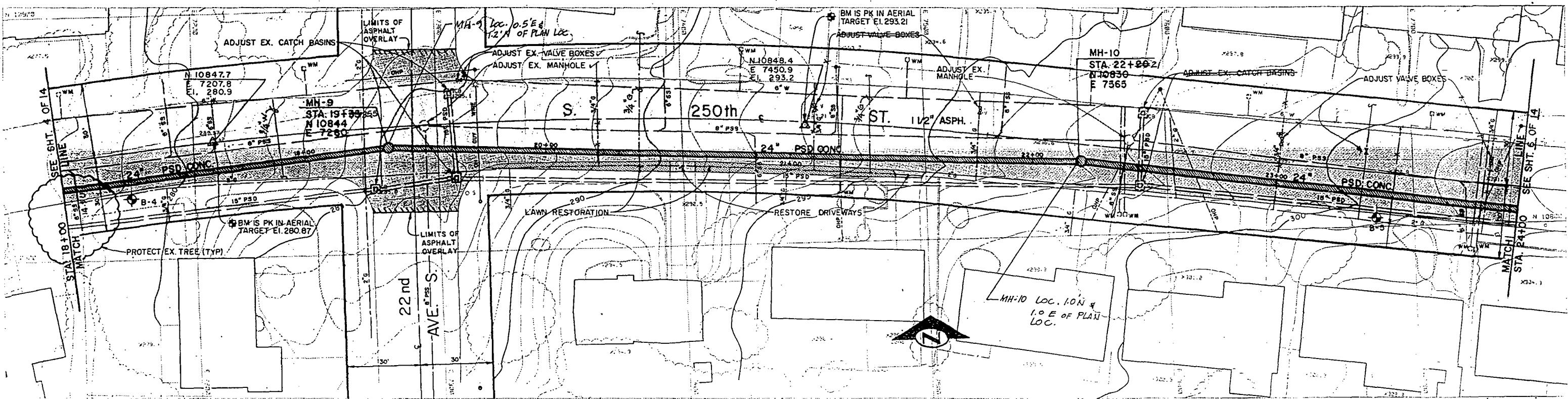
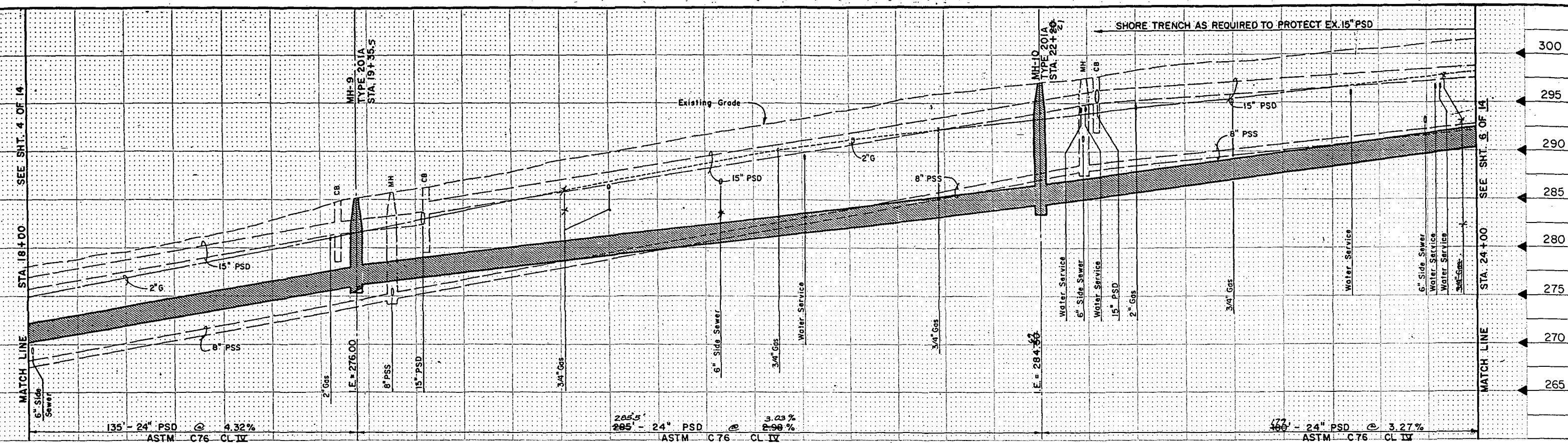
REVISED AS BUILT ABC 8-16-6

City of Seattle Standard Plans and Specifications in

THE CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

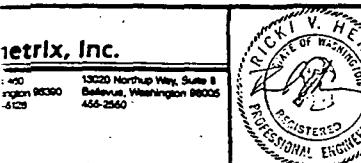
ORDINANCE NO. 113200 APPROVED
FUND:
SCALE: H. 1" = 20' V. 1" = 5' INSPECTOR'S BOOK N

PC.....
R/W.....
CO.....
Vault Plan No
774-23
SHEET 4 OF 1



"AS BUILT" PER PLAN EXCEPT AS NOTED

Storm Drainage Plan & Profile



APPROVED FOR ADVERTISING BY THE BOARD OF PUBLIC WORKS	
SEATTLE WASHINGTON	3/18/88
<i>Jay S. Johnson</i>	
ATTEST:	CHAIRMAN
<i>Barbara V. Tolson</i>	
EXECUTIVE SECRETARY	PROJECT NO.

NAME OR INITIALS AND DATE		INITIALS AND DATE
DESIGNED	<i>[Signature]</i>	REVIEWED
CHECKED	<i>[Signature]</i>	DES.
DRAWN	<i>[Signature]</i>	TRANS. SVC.
HECKED	<i>[Signature]</i>	PROJ.
DESIGN REVIEW <i>27VH</i>		RECEIVED <i>Design W</i>
REVISED AS BUILT <i>ABE</i>		
All work done in accordance with the City of Seattle Standard Plans and Specifications effect on the date shown above, and supplemented by Special Plans and Specifications and Addenda.		

THE CITY OF SEATTLE

DEPARTMENT OF ENGINEERING

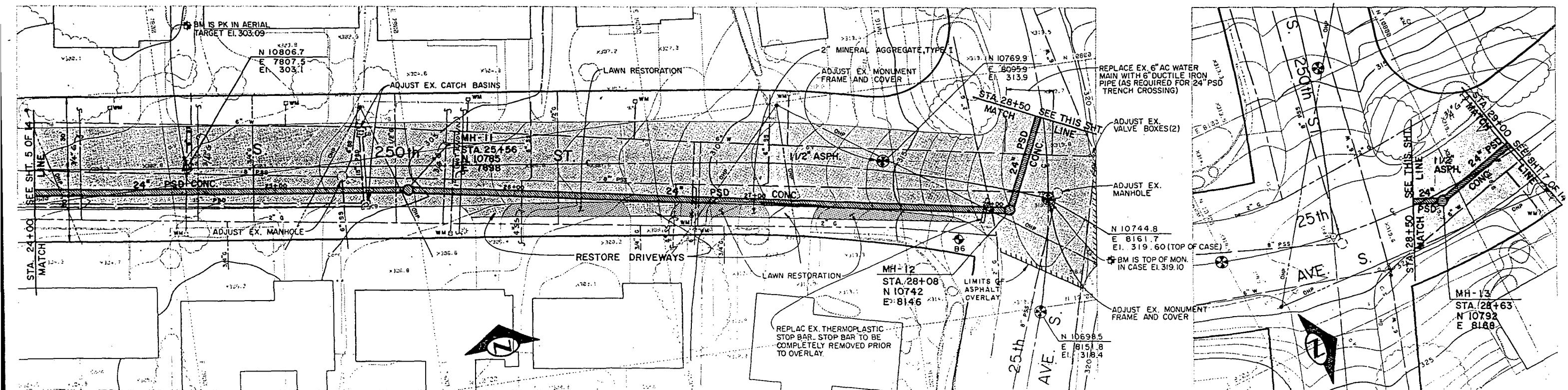
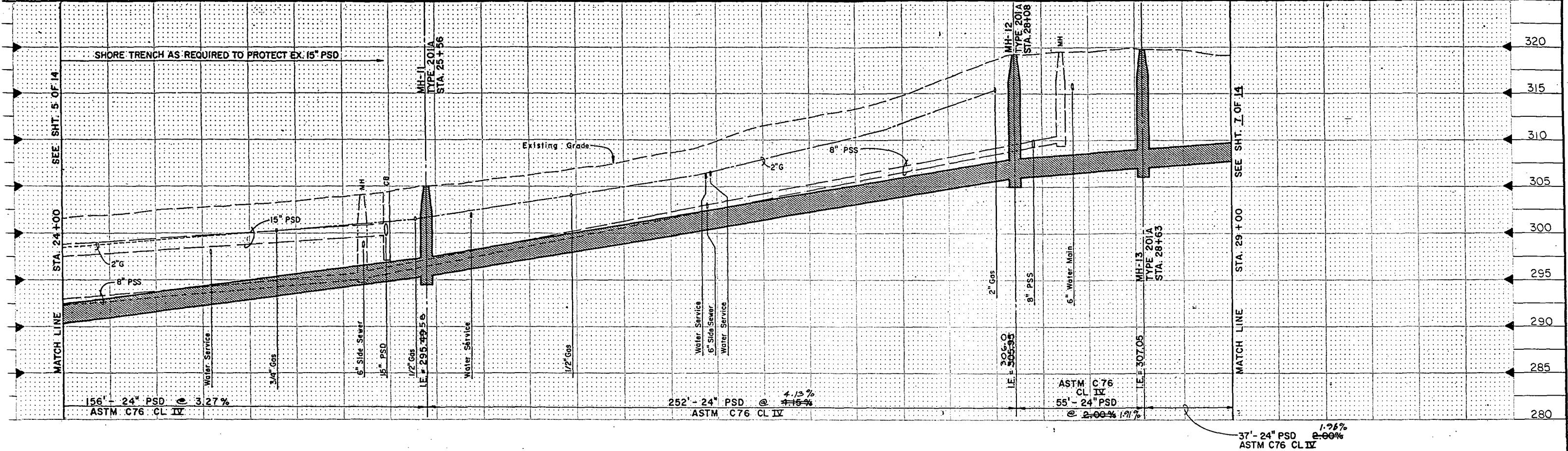
ANCE NO. 113200 APPROVED

4.2.2.4.5

**MIDWAY LANDFILL CLOSURE
OFF-SITE DRAINAGE W/HWY 99**

PROFILM FILMED
WADLEY 19

NO. JOB	PC R/W CO
VAULT PLAN NO.	
774-23	
SHEET	5 CF 14



"AS BUILT" PER PLAN EXCEPT AS NOTED

Storm Drainage Plan & Profile

metrix, Inc.		APPROVED FOR ADVERTISING BY THE BOARD OF PUBLIC WORKS SEATTLE WASHINGTON 3/18/1988 ATTEN: <i>Barbara L. Tolosa</i> EXECUTIVE SECRETARY	NAME OR INITIALS AND DATE DESIGNED <i>✓</i> CHECKED <i>✓</i> DRAWN <i>✓</i> RECEIVED <i>✓</i> DESIGN REVIEW <i>✓</i> INITIALS AND DATE REVIEWED DES. CONST. TRANS. SVC. PROJ. MGR. 1/25/87 RECEIVED <i>✓</i> 1/25/87 REVISED AS BUILT ABC 8-12-87 PROJECT NO.	THE CITY OF SEATTLE DEPARTMENT OF ENGINEERING ORDINANCE NO. 113200 APPROVED FUND: INSPECTOR'S BOOK NO. SCALE: H. 1" = 20Y. 1" = 5' MONROE FIELD REV. V. 19	PC R/W CO VAULT PLAN NO 774-23 SHEET 6 OF 14
MIDWAY LANDFILL CLOSURE OFF-SITE DRAINAGE W/HWY 99				21-1550-15-D106	

SEE SHEET 5 OF 14

MATCH LINE STA. 29+00

85'-24" PSD @ 1.26%
ASTM C76 CL IV

2" Gas

IE = 309.48

MH-14
TYPE 201A
STA. 29+86

15' PSD

Existing Grade

6" Water

6" Side Sewer

8" PSS

150'-24" PSD @ 0.03%
ASTM C76 CL IV

3" Gas

IE = 321.49

MH-15
TYPE 202B
STA. 31+35

Water Meter (2)

12" Gas 3/4" Gas

6" Side Sewer

6" Side Sewer

BEGIN CASING
STA. 32+12MH-16
TYPE 202A
STA. 33+06100'-36" PSD @ 0.34%
ASTM C76 CL IV

IE = 324.98

GOLF PIPE Casing

END CASING
STA. 33+06

Existing Grade

JACK AUGER OR TUNNEL

C

12

MH

12"

Gas

3/4"

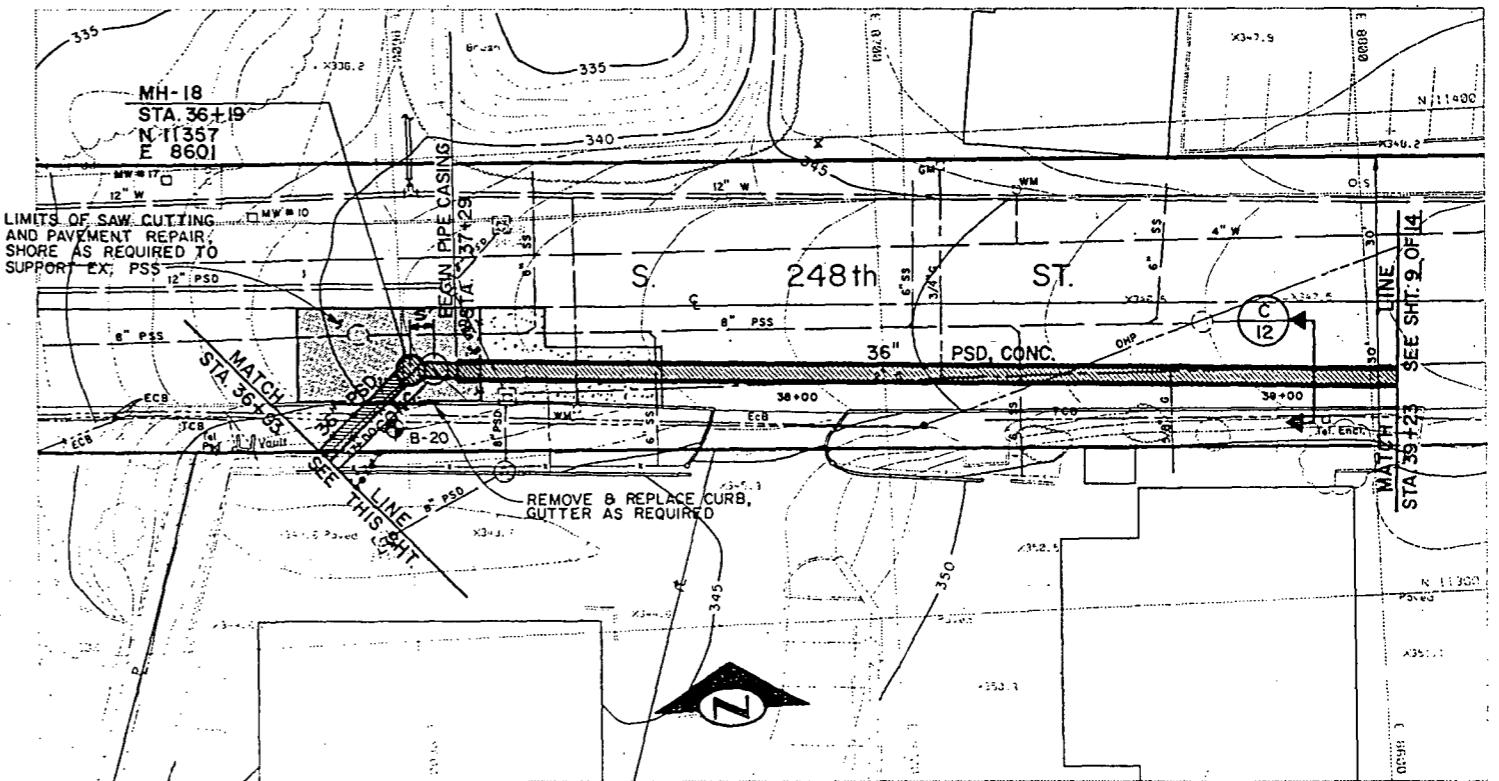
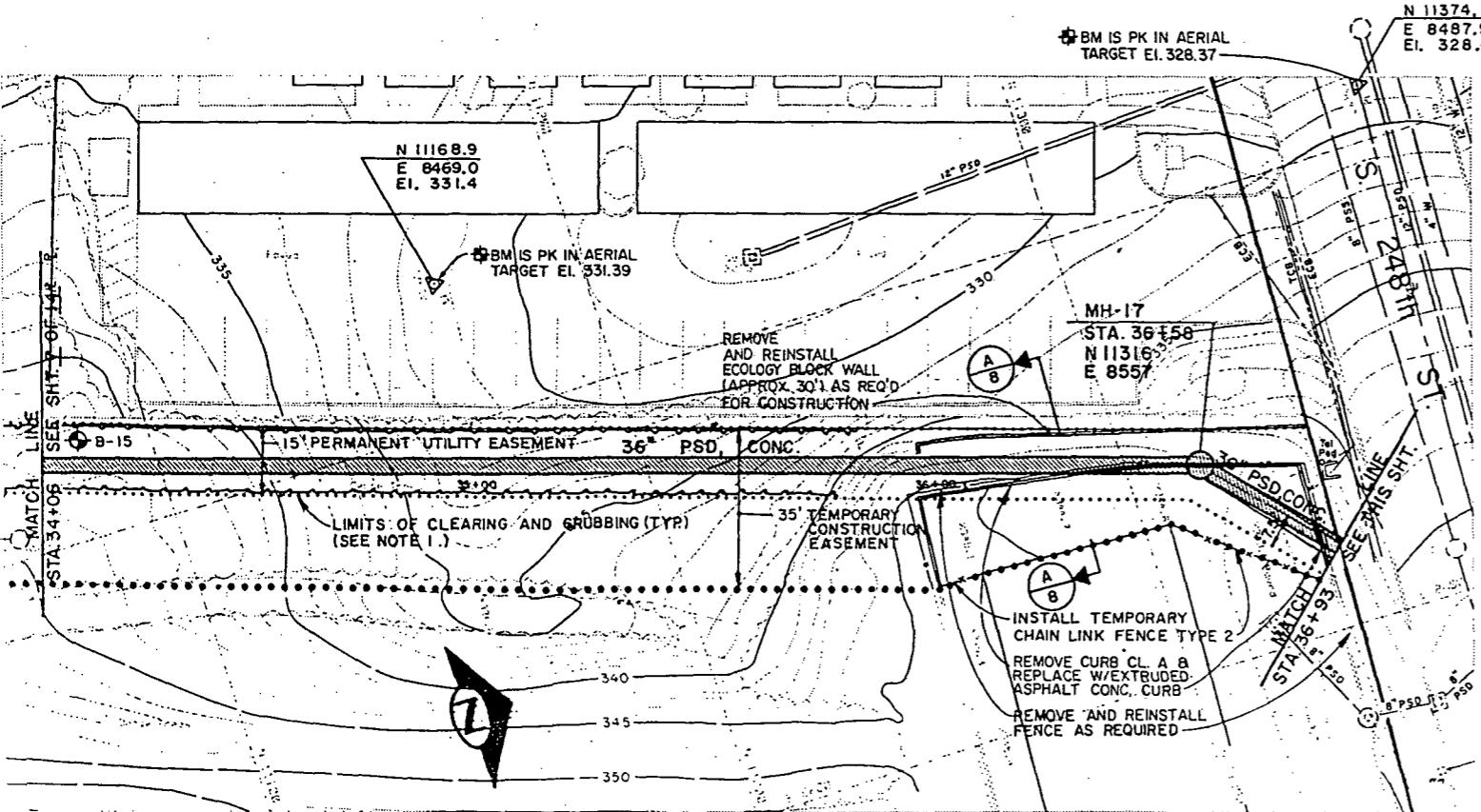
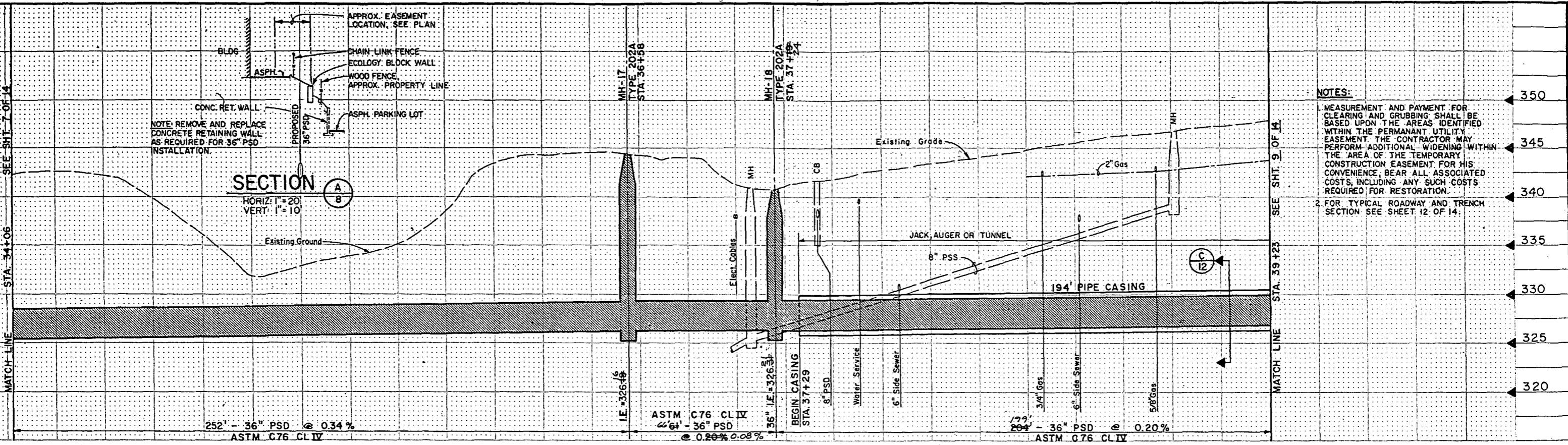
Gas

MH

12"

Gas

3/4"



"AS BUILT" PER PLAN EXCEPT AS NOTED

Storm Drainage Plan & Profile

**MIDWAY LANDFILL CLOSURE
OFF-SITE DRAINAGE W/HWY 99**



metrix, Inc.

-10 13020 Northup Way, Suite
-Jan 26300 Bellevue, Washington 98005

435-2550

APPROVED FOR ADVERTISING
BY THE BOARD OF PUBLIC WORKS
SEATTLE WASHINGTON *3/18/1989*
City of Seattle

ATTEST: Barbara K. Tolson CHAIRMAN
EXECUTIVE SECRETARY PROJECT NO.

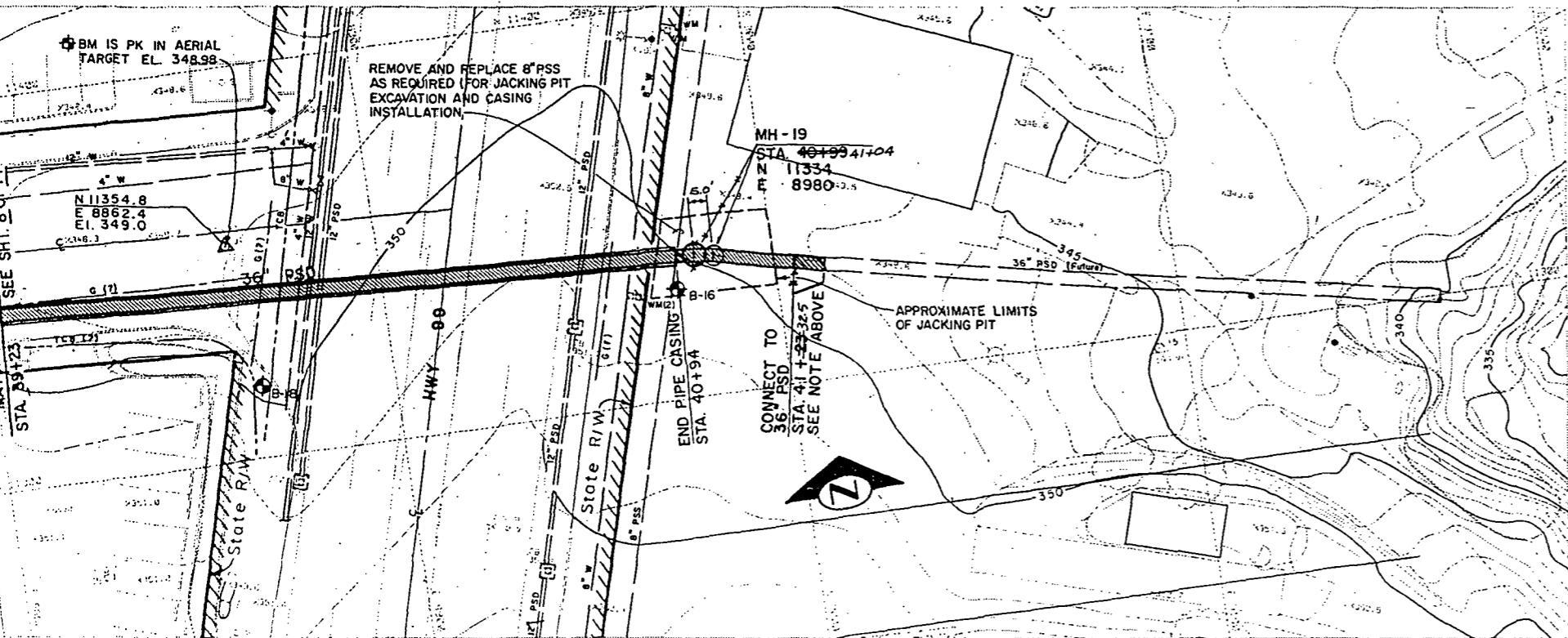
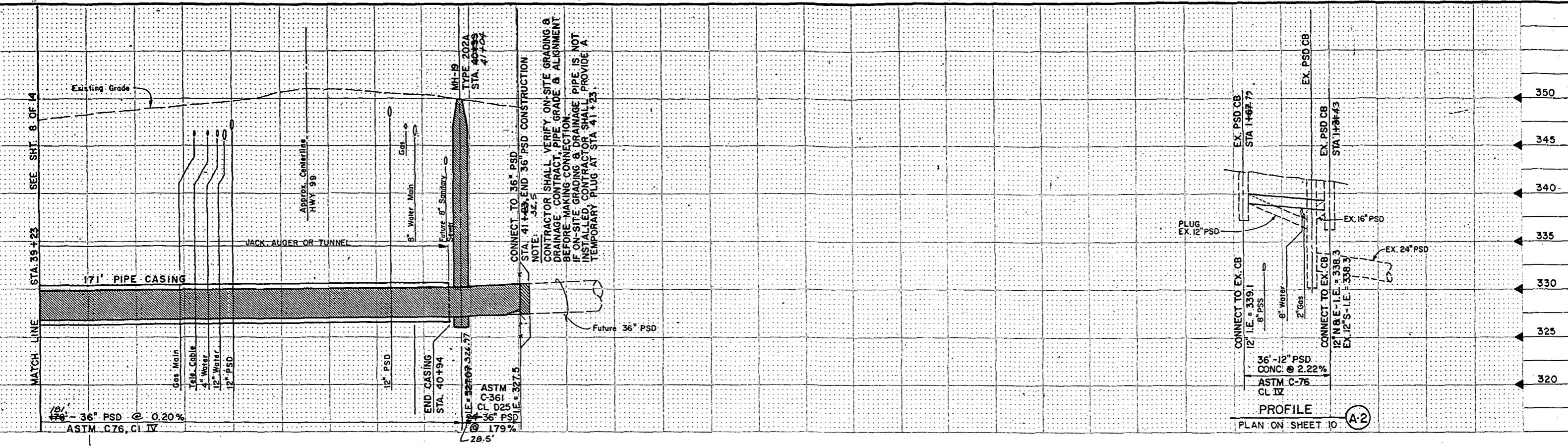
NAME OR INITIALS AND DATE	
DESIGNED	<i>[Signature]</i>
CHECKED	<i>[Signature]</i>
DRAWN	<i>[Signature]</i>
CHECKED	<i>[Signature]</i>
DESIGN REVIEW	<i>[Signature]</i>
All work done in accordance with the City	

INITIALS AND DATE	
REVIEWED:	
DES.	CONST.
TRANS. SVC.	PROJ. MGR. LAG <i>5/26/00</i>
RECEIVED	<i>John W. Clegg 3/19/00</i>
REVISED AS BUILT	<i>ABC D-22-89</i>

THE CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

ORDINANCE NO. 113200 APPROVED
FUND.
SCALE: M. 1" = 20' V. 1" = 5' INSPECTOR'S BOOK NO.

JOB NO.	PC.....
	R/W.....
	CO.....
VAULT PLAN No	
774-23	
SHEET	8 OF 14



"AS BUILT" PER PLAN EXCEPT AS NOTED

Storm Drainage Plan & Profile



APPROVED FOR ADVERTISING
BY THE BOARD OF PUBLIC WORKS
SEATTLE WASHINGTON 3

ATTEST:
Barbara
EXECUTIVE A

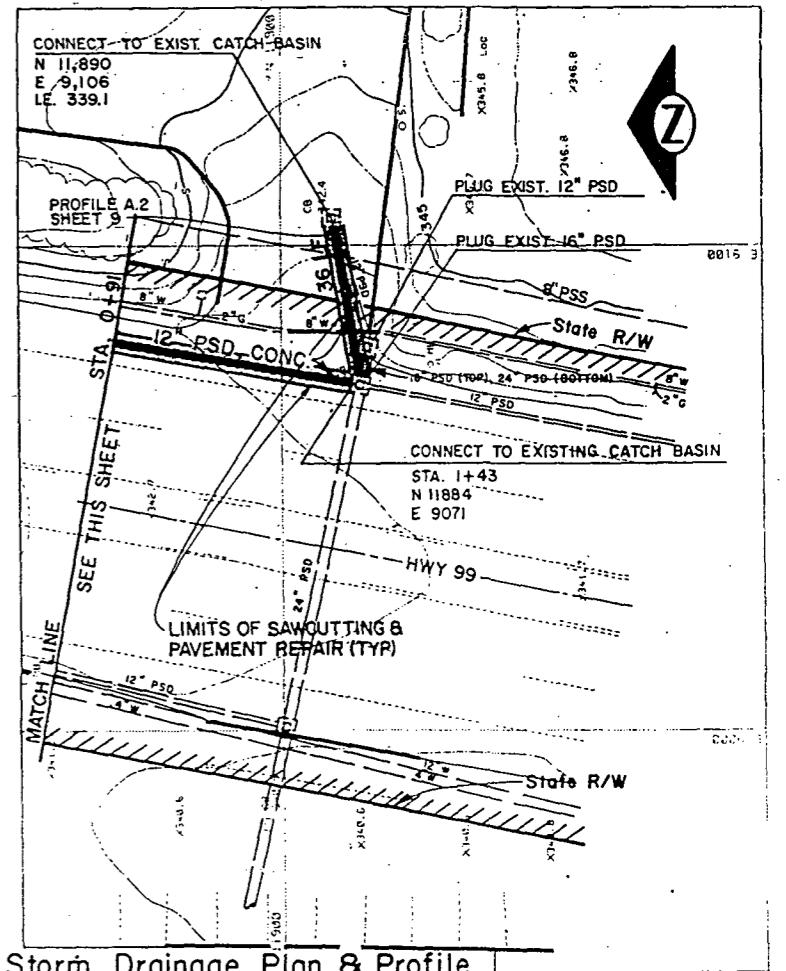
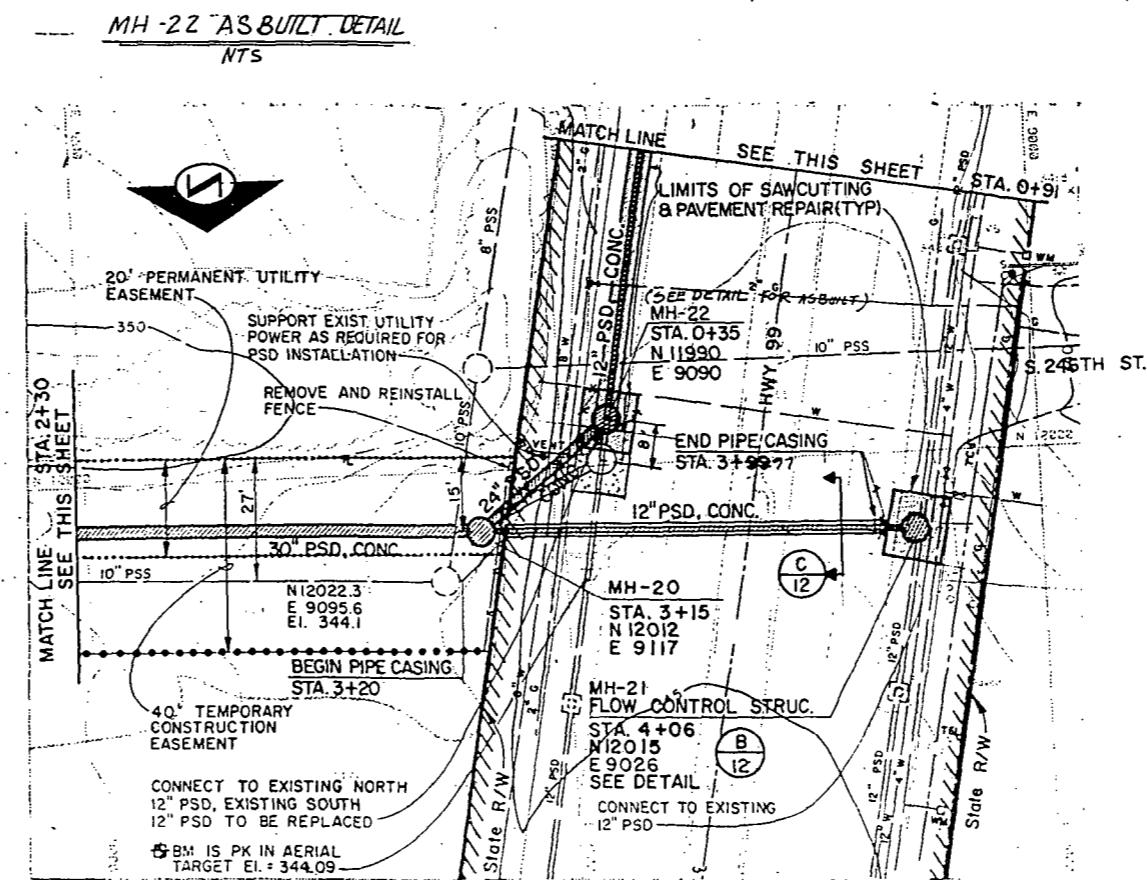
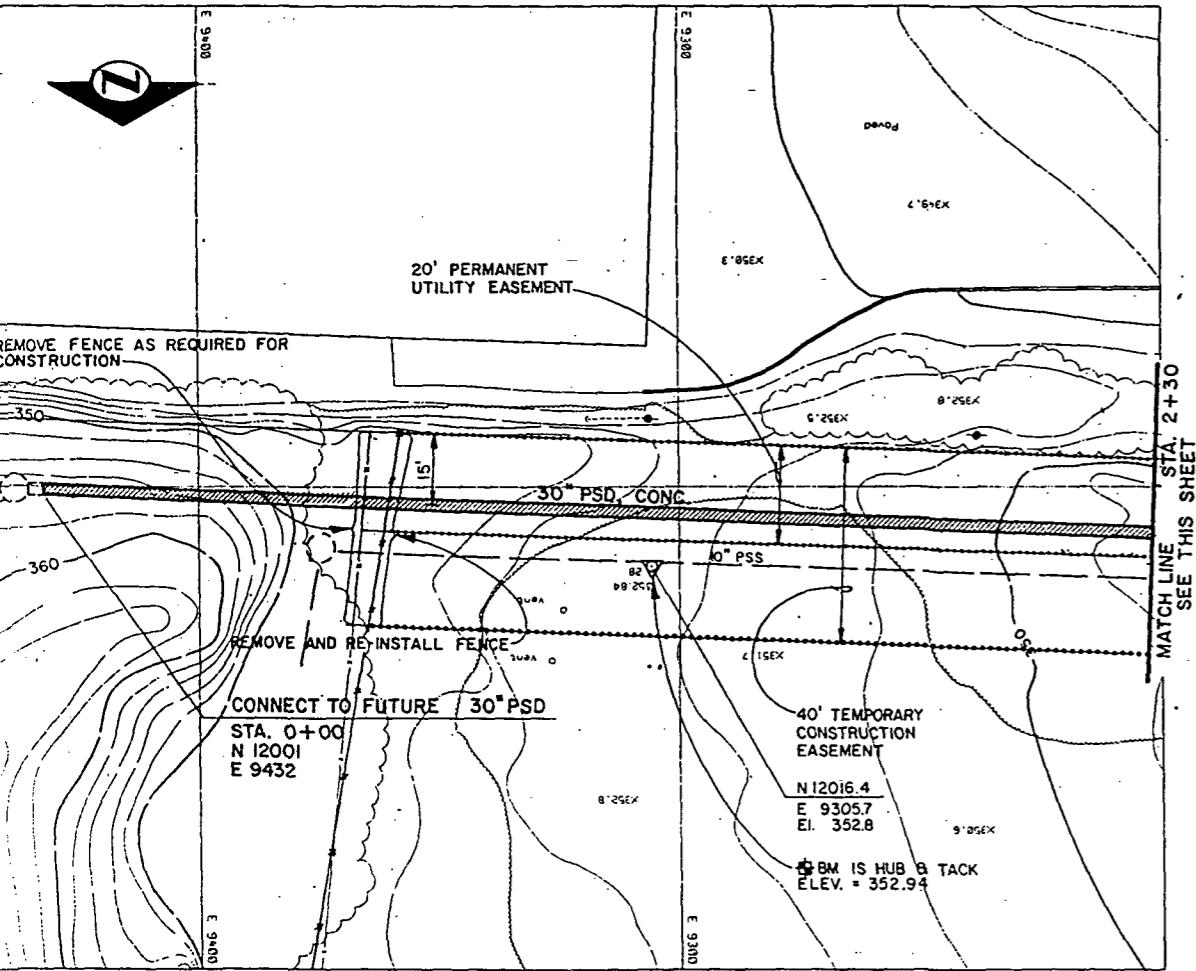
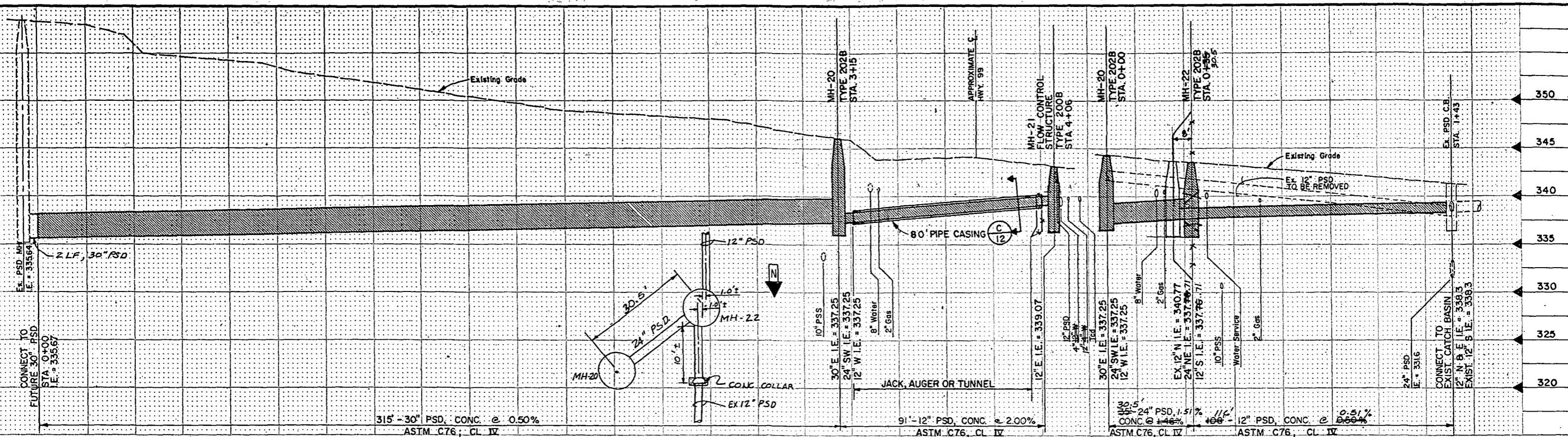
NAME OR INITIALS AND DATE		INITIALS AND DATE	
DESIGNED <i>[Signature]</i>		REVIEWED:	
CHECKED <i>[Signature]</i>		DES.	CONST.
DRAWN <i>[Signature]</i>		TRANS. SVC.	PROJ. MGR/LIC.
CHECKED <i>[Signature]</i>		RECEIVED <i>[Signature]</i> 7-19-85	
DESIGN REVIEW <i>[Signature]</i>		REVISED AS BUILT ABC-B-22-89	
All work done in accordance with the City of Santa Barbara Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.			
IT NO.			

THE CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

ORDINANCE NO. 113200 APPROVED
FUND:
SCALE: H. 1" = 20' V. 1" = 5' INSPECTOR'S BOOK NO.

**MIDWAY LANDFILL CLOSURE
OFF-SITE DRAINAGE W/HWY 99**

JOB NO.	P.C.		
	R/W.		
	CO.		
VAULT PLAN NO			
774-23			
SHEET	9	OF	14



"AS BUILT" PER PLAN EXCEPT AS NOTED



etrix, Inc.

50 13020 Northup Way, Suite 8
Bellevue, Washington 98005
1-800-244-2442

APPROVED FOR AD
BY THE BOARD OF PU
SEATTLE WASHINGTON

ATTEST: *Barbara K. Tolson* CHAIR
EXECUTIVE SECRETARY PROJECT

NAME OR INITIALS AND DATE		INITIALS AND DATE
DESIGNED	REVIEWED:	
CHECKED	DES.	CONST.
DRAWN	TRANS. SVC.	PROJ. MGR.
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DESIGN REVIEW	REVISED AS BUILT	
All work done in accordance with the City of Seattle Standard Plans and Specifications is entered on the date shown above, and supplemented by Special Provisions.		

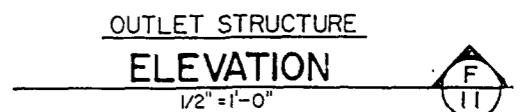
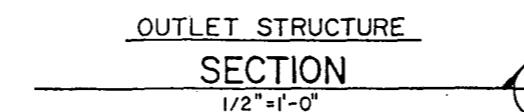
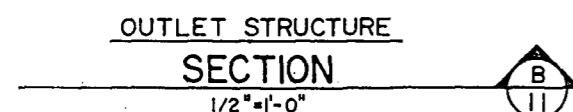
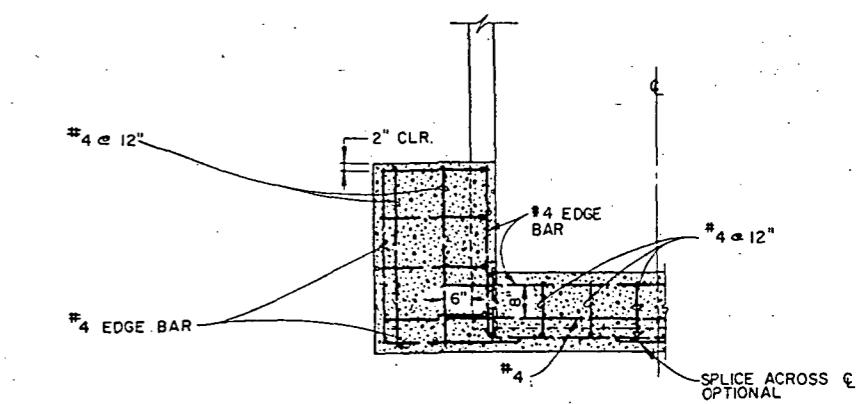
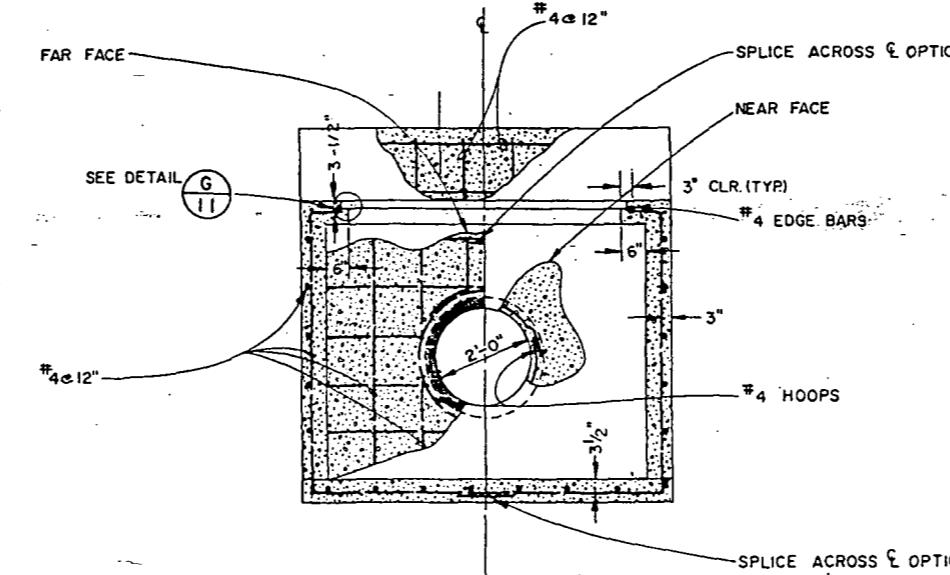
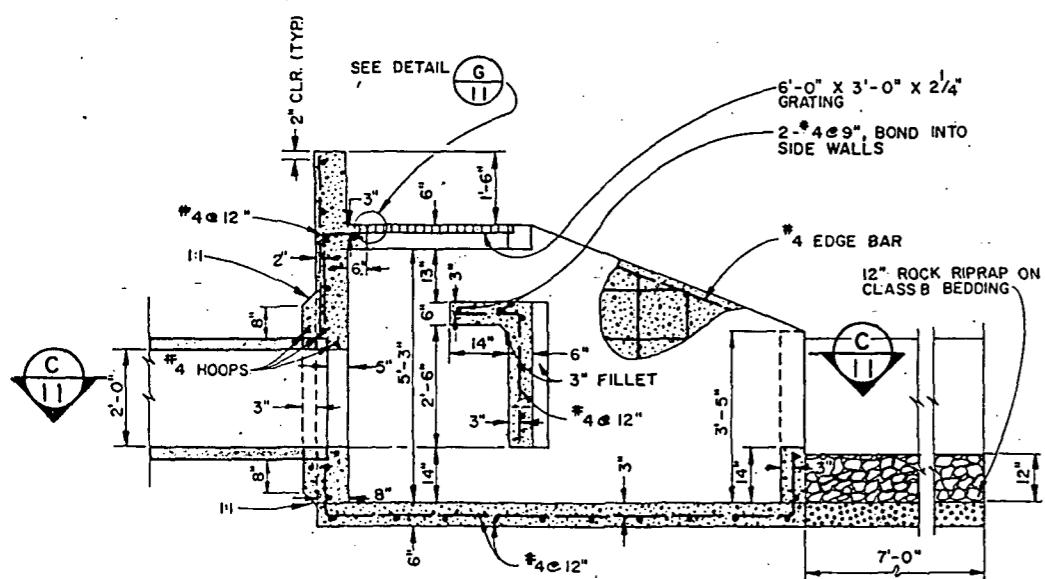
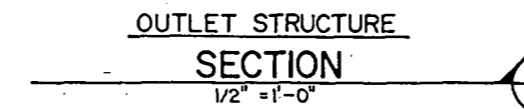
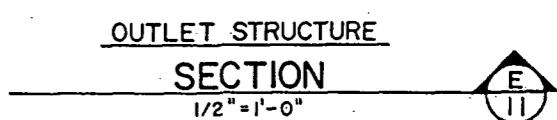
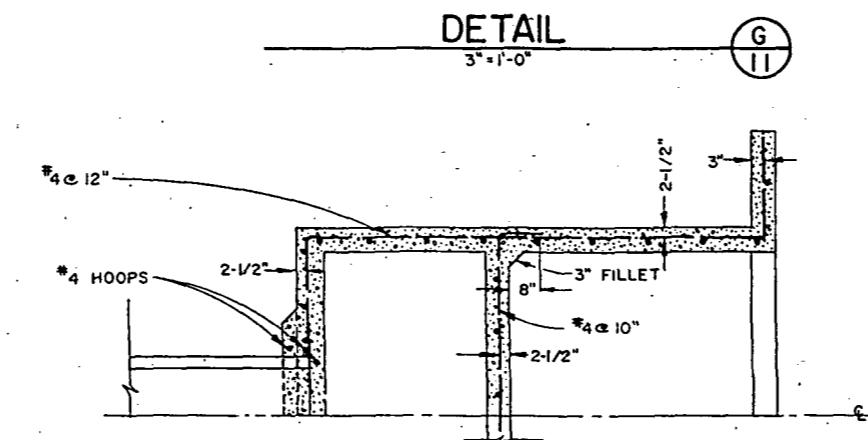
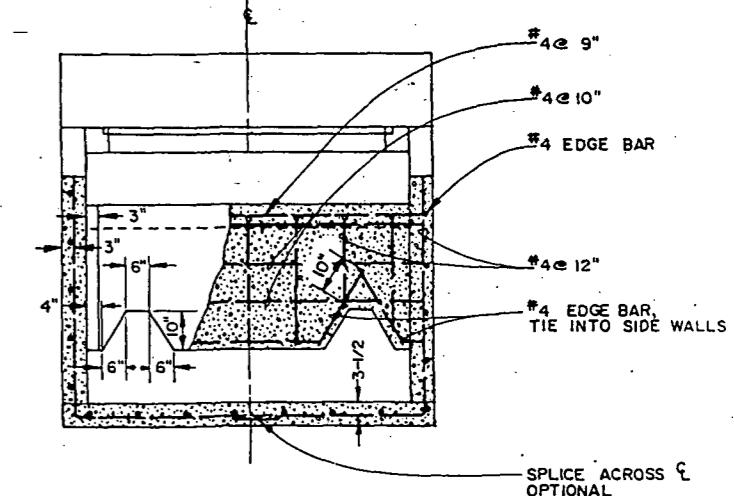
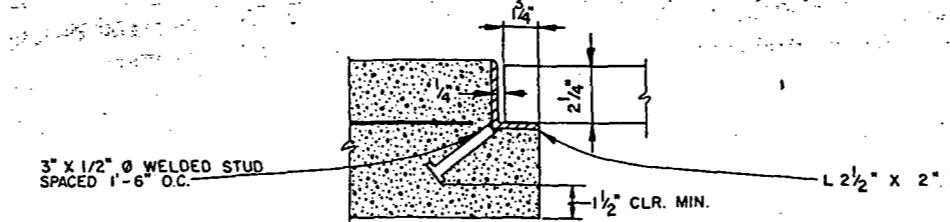
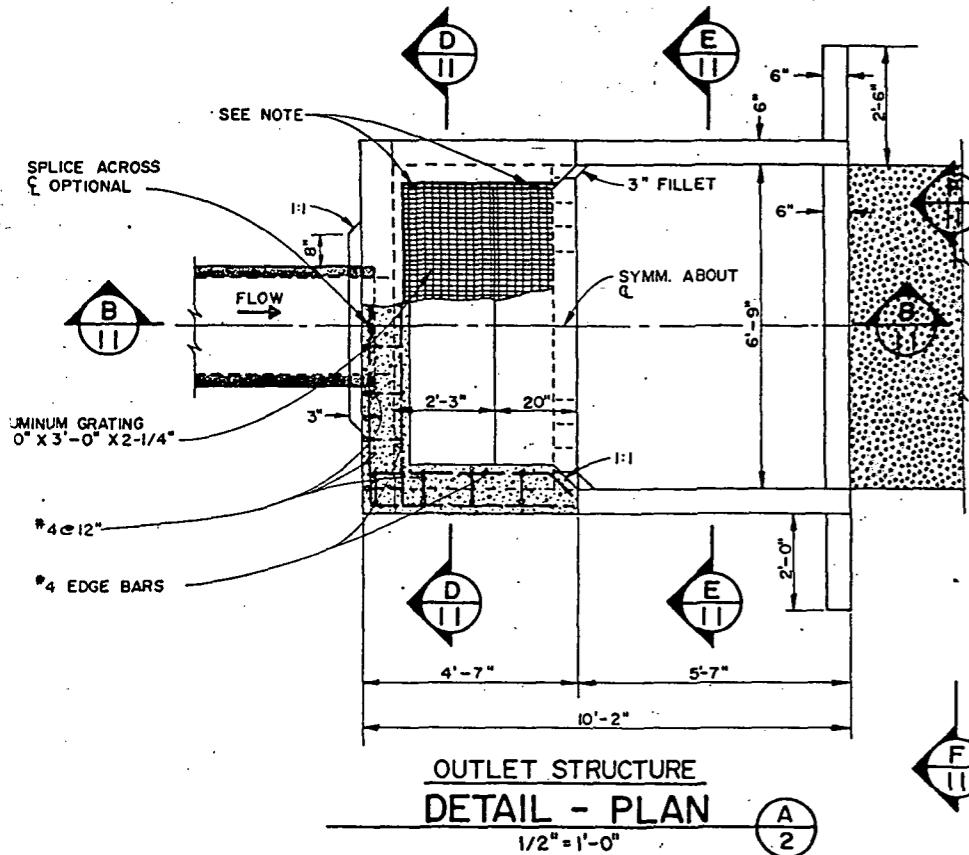
THE CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

ENCE NO. 113200 APPROVED
H. I' = 20' V. I' = 5' INSPECTOR'S BOOK NO.

MIDWAY LANDFILL CLOSURE
OFF-SITE DRAINAGE W/HWY 99

JO N O.	PC
S O B	R/W
	CO
VAULT PLAN NO.	
774-23	
SHEET 10 OF 14	

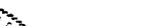
E: SADDLE CLAMPS, BOLTED TO SUPPORT ANGLE,
SHALL BE USED TO SECURE GRATING. SADDLE
CLAMPS SHALL BE AS RECOMMENDED BY GRATING
MANUFACTURER AND SHALL BE PLACED AT 3'
CENTERS ALONG PERIMETER
(5 REQUIRED)

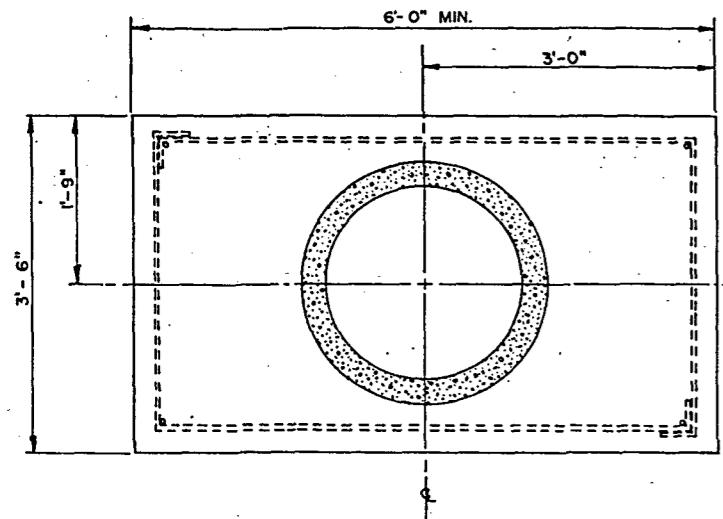


"AS BUILT" PER PLAN EXCEPT AS IND.

Structural Details

MIDWAY LANDFILL CLOSURE
OFF-SITE DRAINAGE W/HWY 99

STRUCTURAL DETAILS											
metrix, Inc.			APPROVED FOR ADVERTISING BY THE BOARD OF PUBLIC WORKS SEATTLE WASHINGTON 3/18/88		NAME OR INITIALS AND DATE DESIGNED <u>LL</u> REVIEWED <u>LL</u> CHECKED <u>LL</u> DES <u>LL</u> CONST <u>LL</u> DRAWN <u>LL</u> TRANS SVC <u>LL</u> PROJ MGR <u>LL</u>	INITIALS AND DATE RECEIVED <u>LL</u> 3/18/88 REVISED AS BUILT <u>ABC B-22-99</u>	THE CITY OF SEATTLE DEPARTMENT OF ENGINEERING EUGENE V. AVERY P.E., DIRECTOR OF ENGINEERING ORDINANCE NO 13200 APPROVED FUND SCALE: H. V. INSPECTOR'S BOOK		PC R/W CO JOB NO. VAULT PLAN NO 774 - 23 SHEET 11 OF 14		
 <p>13020 Northup Way, Suite 6 Bellevue, Washington 98005 425-390 455-2550</p>		 <p>ATTEST: <u>Rick V. Hermel</u> CHAIRMAN <u>Beverly Teller</u> EXECUTIVE SECRETARY PROJECT NO. <u>LL</u></p>		<p>All work done in accordance with the City of Seattle Standard Plans and Specifications in effect at the date shown above, and supplemented by Special Provisions</p>		 <p>MIDWAY LANDFILL CLOSURE OFF-SITE DRAINAGE W/HWY 99</p>		19			



NOTES:

1. THICKNESSES OF MATERIALS SPECIFIED ARE TO BE USED AS MINIMUMS. ACTUAL THICKNESSES SHALL BE AS REQUIRED TO MATCH EXISTING CONDITIONS.

FEATHER TO MEET EXISTING PAVEMENT

1-1/2" PAVEMENT, ASPHALT CONCRETE, CL G/OVERLAY FULL WIDTH OF STREET WHERE INDICATED

VARIES 20' TO 35'

STREET VARIES

2" PAVEMENT, ASPHALT CONCRETE, CL B, (SEE NOTE 1)

EX. PAV'T OR SURFACING-VARIES-SEE PLANS

2" MINERAL AGGREGATE, TYPE I (WHERE INDICATED ON DRAWINGS)

MAX. PAY WIDTH FOR REMOVAL & REPLACEMENT OF PAV'T OR SURFACING

-6" MINERAL AGGREGATE, TYPE I (SEE NOTE 1)

EX. PAV'T OR SURFACING-VARIES-SEE PLANS

2" MINERAL AGGREGATE, TYPE I (WHERE INDICATED ON DRAWINGS)

MAX. PAY WIDTH FOR EXCAVATION & BACKFILL ABOVE TOP OF PIPE

MINERAL AGGREGATE, TYPE I

NOTE: SEE NOTE 1

1. a = 4" WHEN ID. IS LESS THAN 30".

2. a = 6" WHEN ID. IS 30" OR MORE.

3. MAX. WIDTH FROM BOTTOM OF TRENCH TO TOP OF PIPE = MAX. PAY WIDTH.

EXTRA EXCAVATION AS NEEDED

CLASSY SIDE SLOPES VARIES

ACTUAL SIDE SLOPES VARIES

CLAY BEDDING 1'-6" MIN

BACKFILL SIDE SLOPES VARIES

CLAY BEDDING 4"-6" MAX

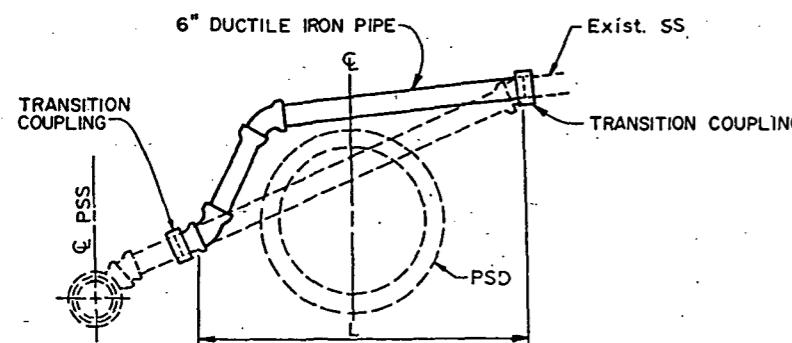
EXCAVATION AS NEEDED

40" 15" ID. & SMALLER

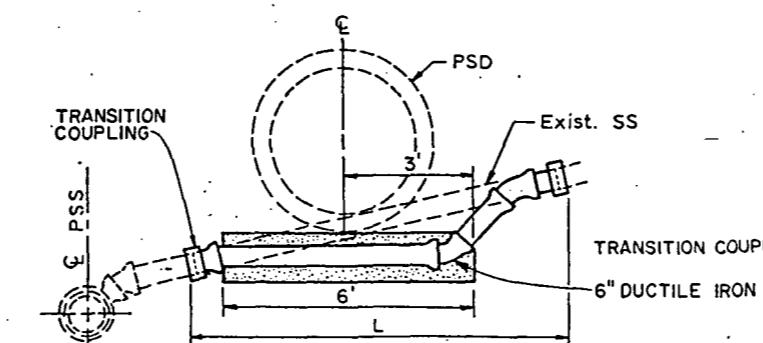
15" ID. + 18"

18" ID. & LARGER

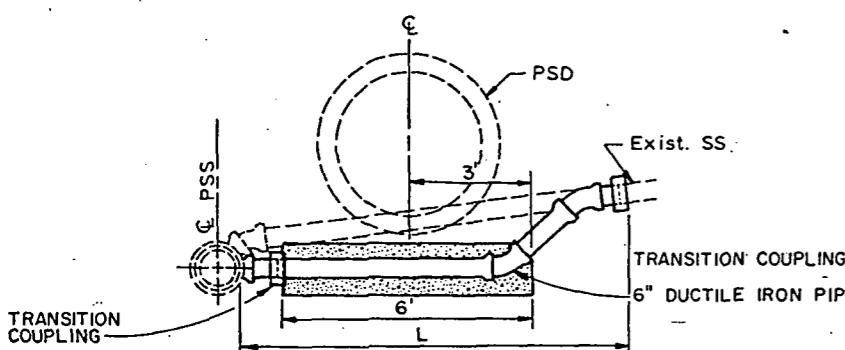
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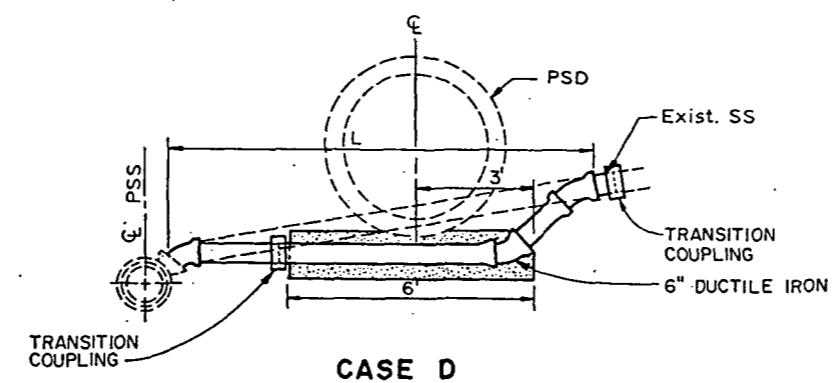
CASE A
ABOVE STORM DRAIN TO HOUSE CONNECTION
N.T.S.



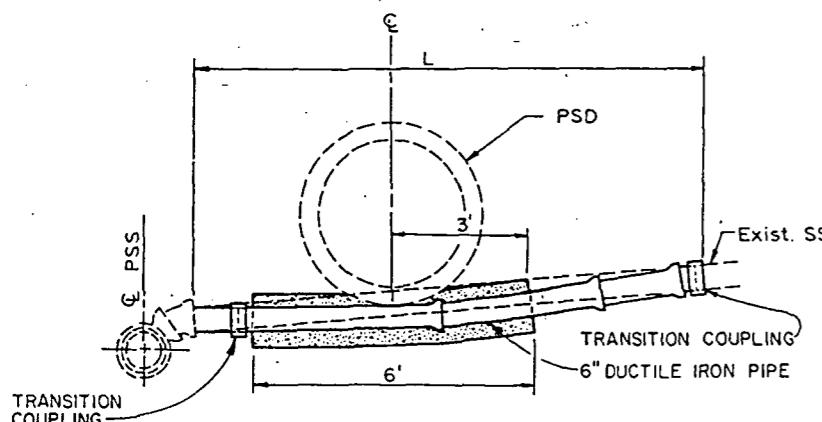
CASE B
BELOW STORM DRAIN TO HOUSE CONNECTION
N.T.S.



CASE C
BELOW STORM DRAIN & SADDLE
N.T.S.

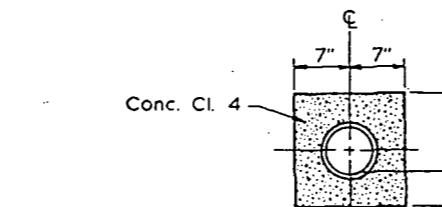


CASE D
BELOW STORM DRAIN TO Y
N.T.S.



CASE E
BELOW STORM DRAIN TO HOUSE CONNECTION
SLOPE SLIGHTLY MODIFIED
N.T.S.

CROSS SECTION OF CONCRETE REINFORCEMENT
FOR 6" PIPE
N.T.S.

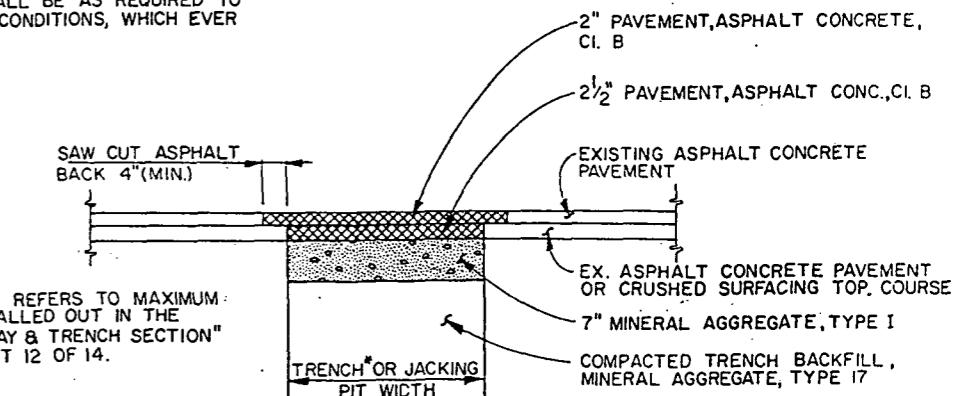


NOTES

1. All Pipes Shall Be 6" Internal Diameter Laid At 2% Minimum Slope.
2. All bends shall be 6"-1/8 bends unless specified otherwise.
3. Concrete Reinforcement shall be used on all pipes to be constructed under storm drains.
4. L Equals The Average Total Length In Feet As Measured By The Engineer.
5. A 6" Saddle, Where Used, Shall Be Connected To The Pipe Constituting The Existing Y Or T, Or To The Next Lower Pipe Length.

NOTE:

THICKNESSES OF MATERIALS SPECIFIED ARE TO BE USED AS MINIMUMS. ACTUAL THICKNESSES SHALL BE AS REQUIRED TO MATCH EXISTING CONDITIONS, WHICH EVER IS GREATER.



TYPICAL PAVEMENT PATCH
(FOR HIGHWAY 99 PAVEMENT RESTORATION ONLY)
N.T.S.

*TRENCH WIDTH REFERS TO MAXIMUM PAY WIDTH AS CALLED OUT IN THE "TYPICAL ROADWAY & TRENCH SECTION" SHOWN ON SHEET 12 OF 14.

Misc. Details

"AS BUILT" PER PLAN EXCEPT AS NOTED

Misc. Details

etrix, Inc.
1200 Northup Way, Suite 8
Bellevue, Washington 98005
420 455-2550



APPROVED FOR ADVERTISING
BY THE BOARD OF PUBLIC WORKS
SEATTLE WASHINGTON 3/18/1988
ATTEST: *Jay Zuber* CHAIRMAN
Barbara J. Zuber EXECUTIVE SECRETARY PROJECT NO. *ABC B-22-89*

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED	REVIEWED
CHECKED	DE.S. CONST.
DRAWN	TRANS. SVC. PROJ.MGR. JACKSON
CHECKED	RECEIVED Drawn by G.C. 3/18/88
DESIGN REVIEW RVH	REVISED AS BUILT ABC B-22-89

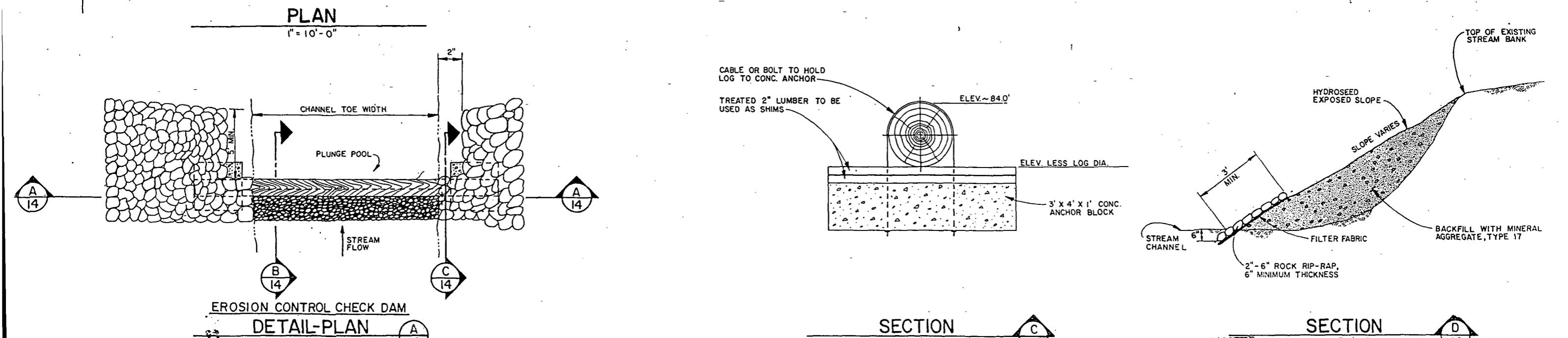
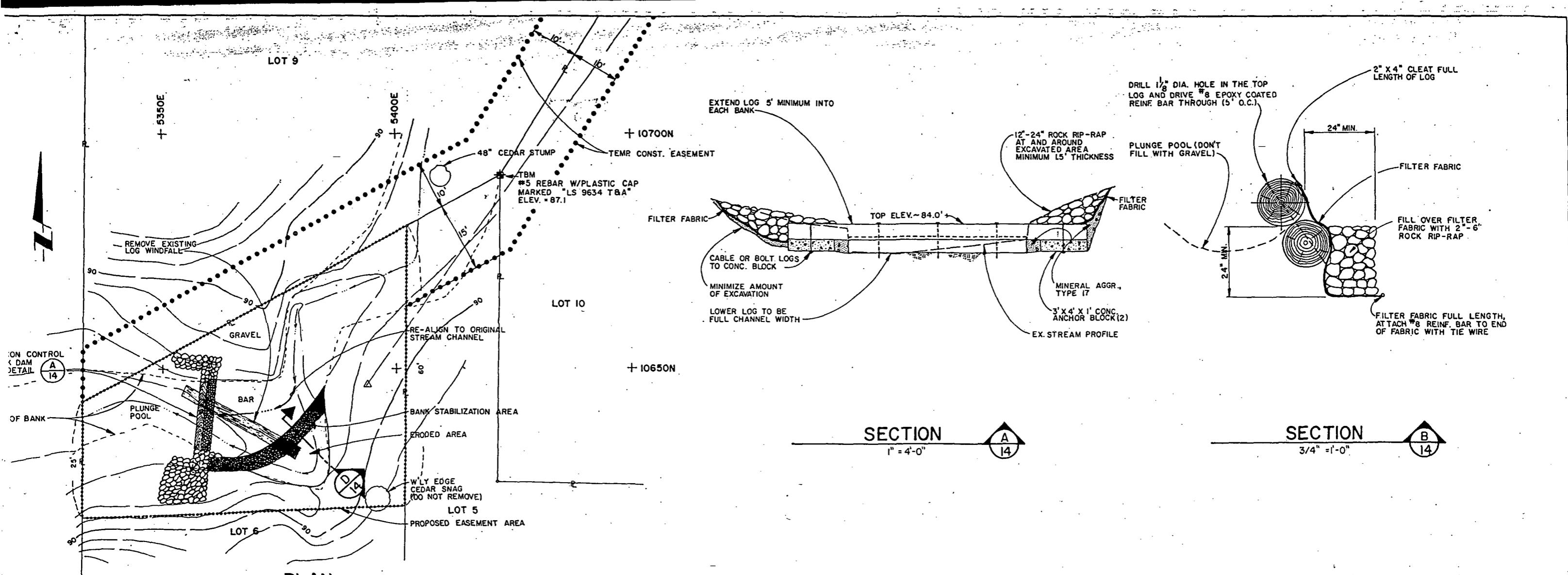
All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions

THE CITY OF SEATTLE
DEPARTMENT OF ENGINEERING
ORDINANCE NO. 113200 APPROVED
FUND: V.
SCALE: H. V.
INSPECTOR'S BOOK

MIDWAY LANDFILL CLOSURE
OFF-SITE DRAINAGE W/HWY 99

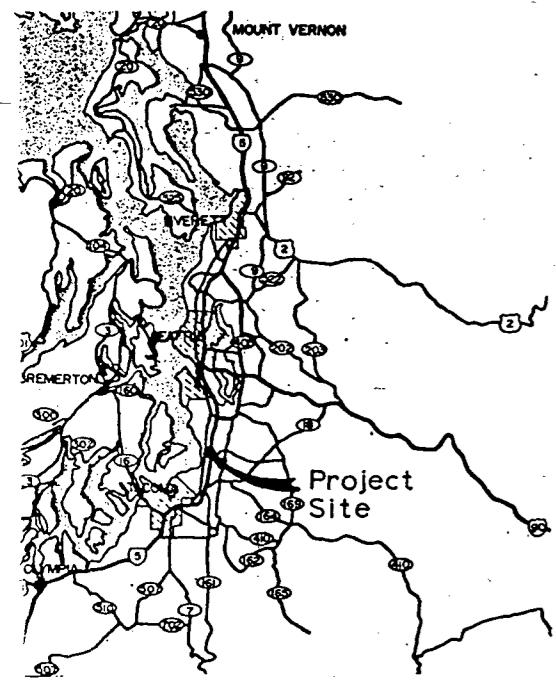
MICROFILMED
BY VAULT

PC
R/W
CO
Vault Plan No.
774 - 23
SHEET 13 OF 14



netrix, Inc.	RICKI V. HERME PROFESSIONAL ENGINEER STATE OF WASHINGTON REGISTRATION NO. 10020 Northgate Way, Suite 8 Seattle, Washington 98103 455-2550	APPROVED FOR ADVERTISING BY THE BOARD OF PUBLIC WORKS SEATTLE, WASHINGTON 3/18/88 Attest: Barbara V. Palmer EXECUTIVE SECRETARY Chairman Project No. Design Review RVH	NAME OR INITIALS AND DATE DESIGNED DRAWN CHECKED REVIEWED TRANS SVC RECEIVED CONST PROJ MGR REVISED AS BUILT ABC B-22-87	INITIALS AND DATE REVIEWED DES CONST TRANS SVC RECEIVED CONST PROJ MGR REVISED AS BUILT ABC B-22-87	THE CITY OF SEATTLE DEPARTMENT OF ENGINEERING EUGENE V. AVERY P.E., DIRECTOR OF ENGINEERING ORDINANCE NO. 113200 FUND. SCALE: M. INSPECTOR'S BOOK:	PC R.W. CO. VAULT PLAN NO. 774-23 MICROFILM FILED BY VAULT 19 SHEET 14 OF 14 21-1550-15-D114
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**MIDWAY LANDFILL CLOSURE
OFF-SITE DRAINAGE W/HWY 99**



Vicinity Map

General Notes

unless Otherwise Specified:

It shall be the Contractor's responsibility to contact the utilities within the construction area to verify the location of existing facilities. "One call" to 1-800-424-5555, 48 hours prior to digging (excluding weekends and holidays) will relay a message to the utility companies.

Horizontal Survey Control - Assumed coordinates of aerial target HV-7 (N 10,000 and E 10,000), located on S 252nd St., were provided by the City of Seattle Engr. Dept.

Datum - Elevation of aerial target HV-6 (376.20), located on S 252nd St., was provided by the City of Seattle Engr. Dept.

The geotechnical report, including test data, for soil borings is attached to the Special Provisions.

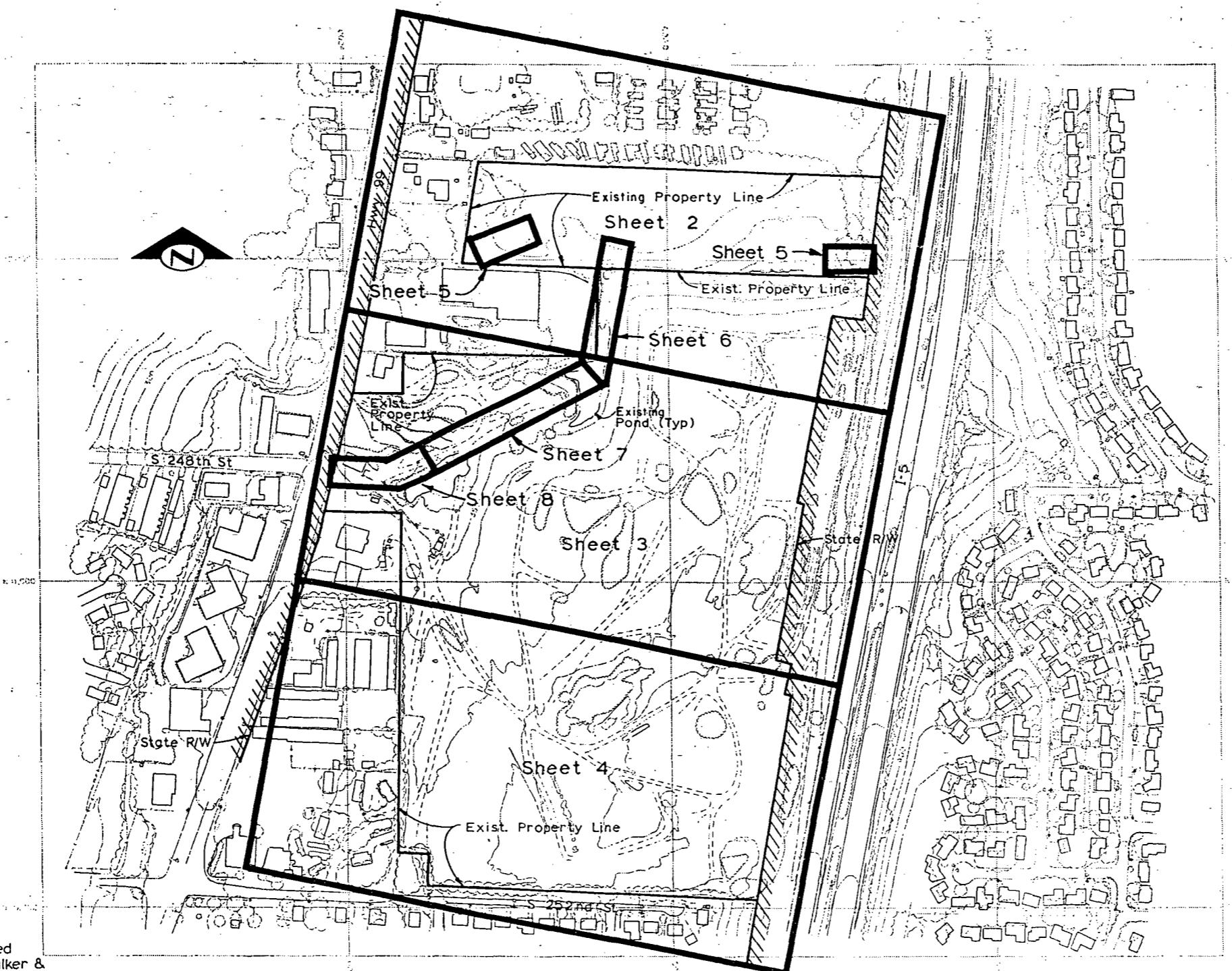
Aerial photography and photogrammetry are based upon photography performed Feb. 24, 1987 by Walker & Assoc. and do not reflect changes made subsequent to that date.

Drainage Notes

unless Otherwise Specified:

Pipe 30" and 36" diameter shall be concrete as designated on the Storm Drain Profiles.

Culvert pipe 12" and 18" diameter shall be 0.105" thickness aluminum per ASHTO M 196.



Sheet Index Map

Scale : 1" = 200'

Legend

• J'	Gas Monitoring Probe
⊕ AR	Gas Extraction Well
PSD	Pipe Storm Drain
PSS	Pipe Sanitary Sewer
(N.I.C.)	Not in Contract
■■■■■	Approx. Construction-Phase Boundary
~~~~~	Limits of Clearing & Grubbing
—	Earthen Berm (Sheet 2 Only)
BHI OR MW-18	Monitoring Well
B-21	Soil Boring Location
■■■■■	Hydroseeding Limits
OR	Exist. Gas Collection System

### Drainage Notes (cont.)

3. Drain pipe 6" and 8" diameter shall be PVC per ASTM D 3034 SDR 35.
4. Perforated drain pipe 6" diameter shall be PVC per AASHTO M 278.
5. Where designated by the Engineer, casing pipe 18" diameter shall be steel per AWWA C 200.
6. Bedding shall be Class B.

### Sheet Index

Sheet No.	Description
1	Vicinity Map, Sheet Index Map, Sheet Index; Legend & Notes
2 - 4	Grading Plans
5 - 8	Storm Drain Plan & Profile
9 - 12	Road Profiles
13 - 20	X - Sections
21	Sections & Details
22-25	Structural Details
26	Collector Drain - Plan & Sections
27	Details
28	Electrical Plan and Misc.

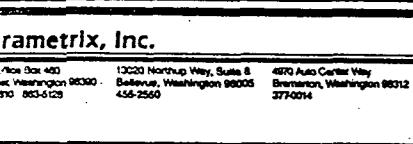
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(2) Sheet on which detail appears

Title (1) Detail reference letter  
(2) Sheet from which detail was taken

Adv 6/6/82

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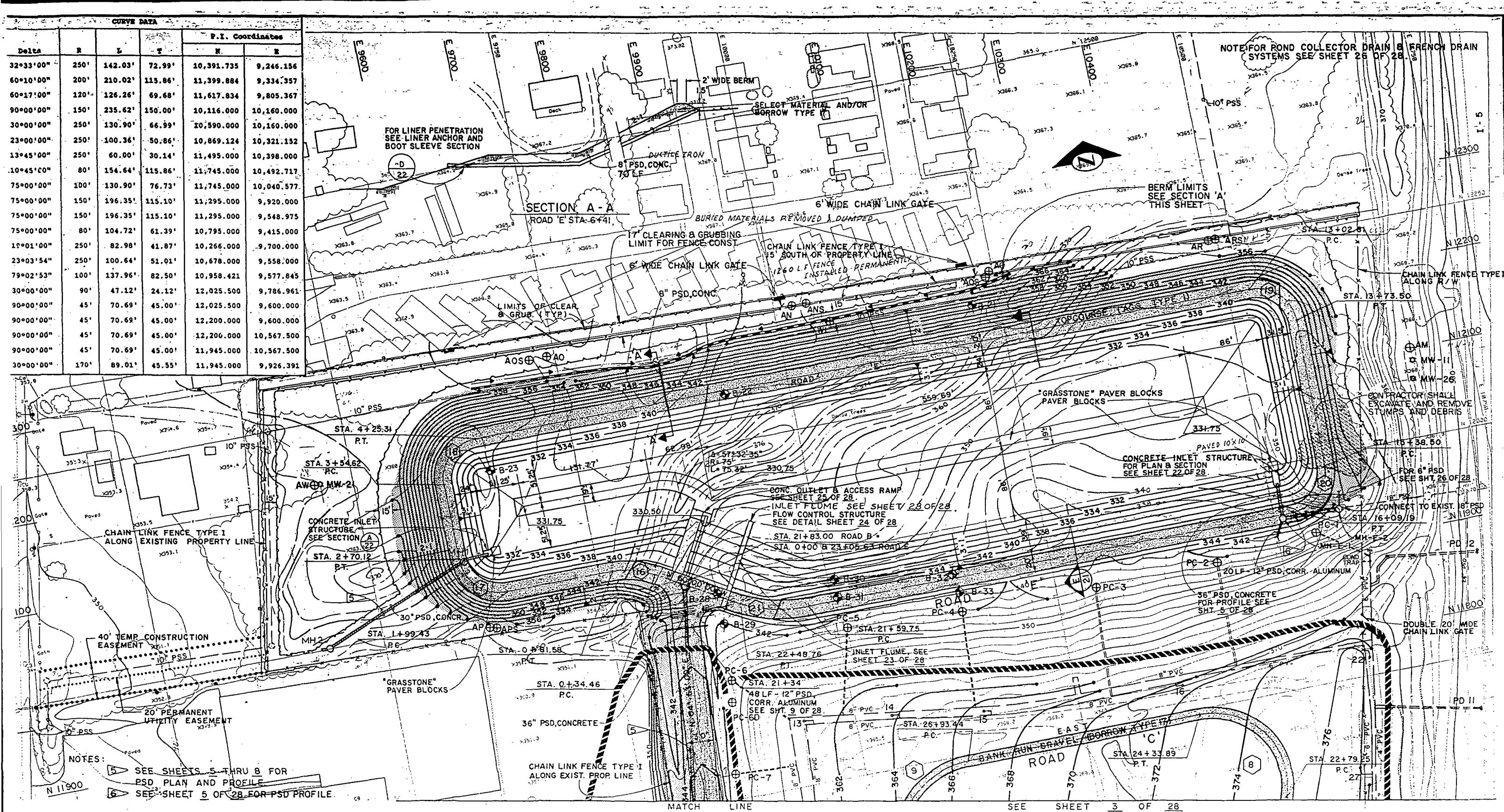
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DESIGN REVIEW: *[Signature]* REVISED AS BUILT H.T. 11/30/90  
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SCALE: AS NOTED

Vic. Map, Sheet Index Map, Legend & Sheet Index  
MIDWAY ON-SITE GRADING & DRAINAGE

PC. S1357A  
R.W.  
CO. S1357C  
VAULT PLAN No. 774-20  
SHEET 1 OF 28



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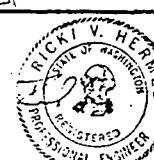
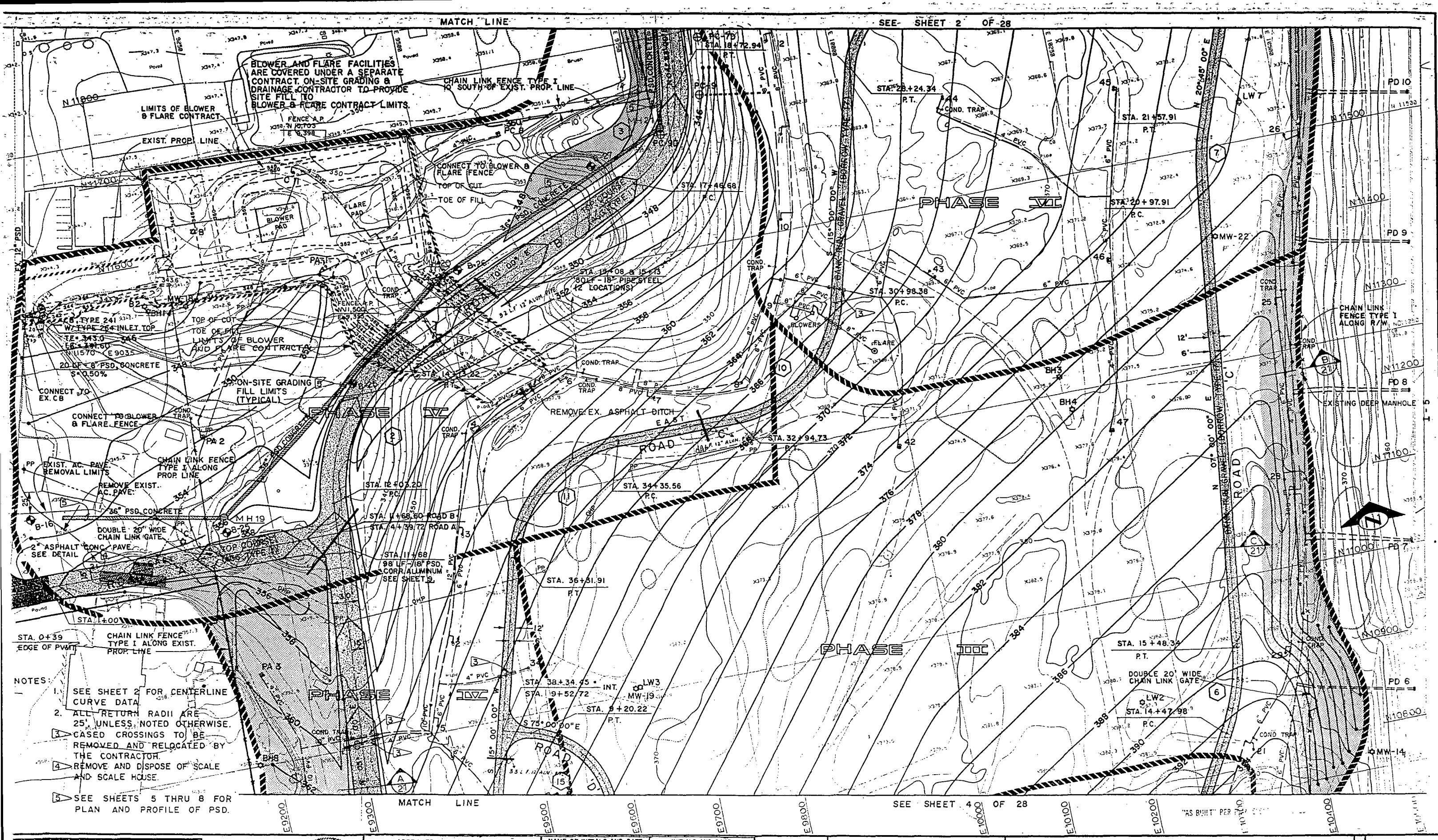
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SCALE: H. 1" = 50' V. N/A

### Grading Plan

### MIDWAY ON-SITE GRADING & DRAINAGE

JOB NO. *RD*  
R/W. *RD*  
CO. *RD*  
VAULT PLAN NO. *774-20*  
SHEET 2 OF 28



ametrix, Inc.  
P.O. Box 400  
West Washington 98030  
(206) 563-6121

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4700 Auto Center Way  
Bainbridge, Washington 98112  
(360) 774-0014

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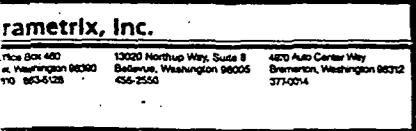
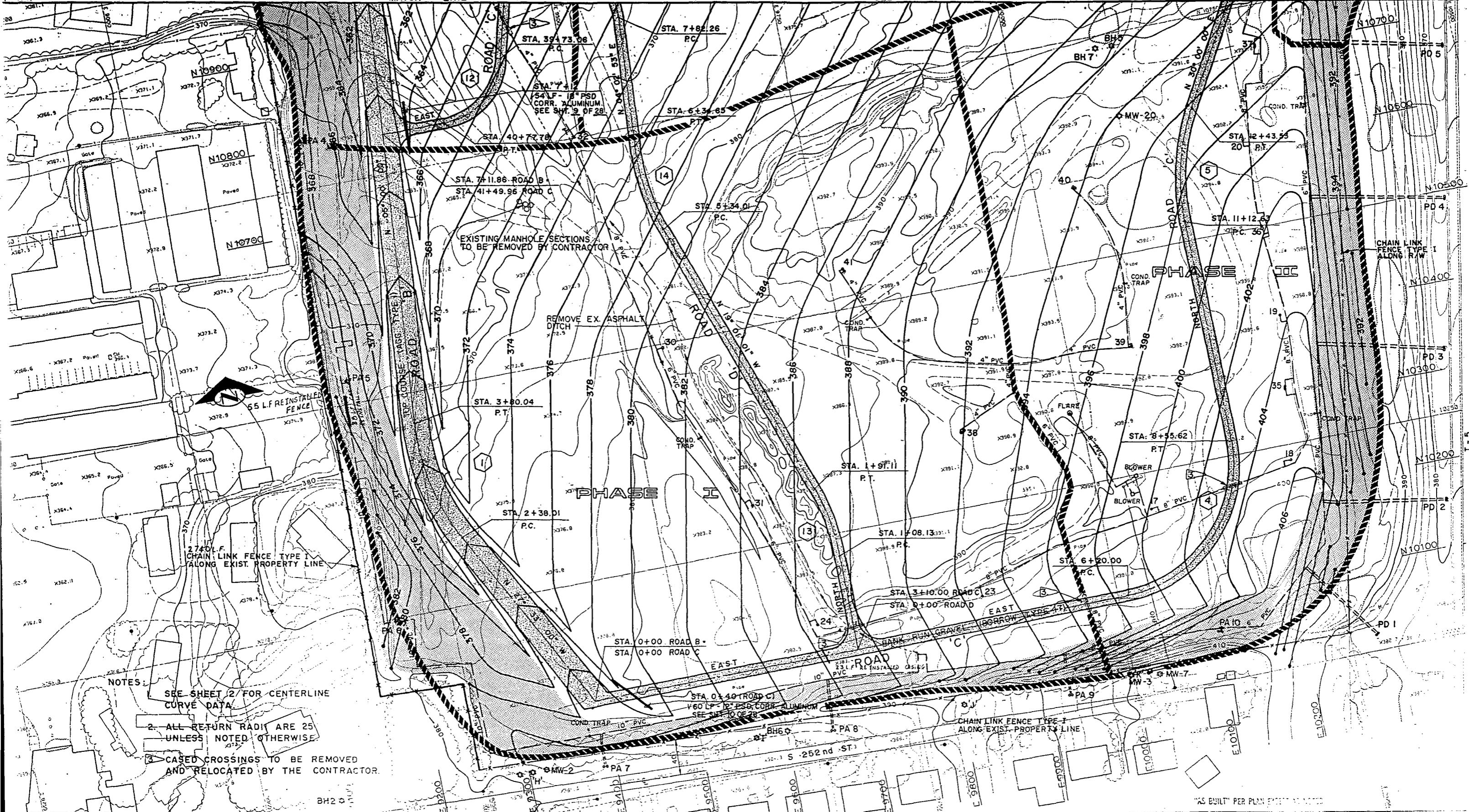
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DESIGN REVIEW <i>D. H. H.</i>		REVISED AS BUILT. <i>D. H. H.</i>
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### Grading Plan

## MIDWAY ON-SITE GRADING & DRAINAGE

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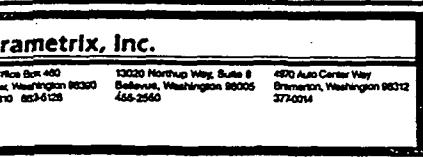
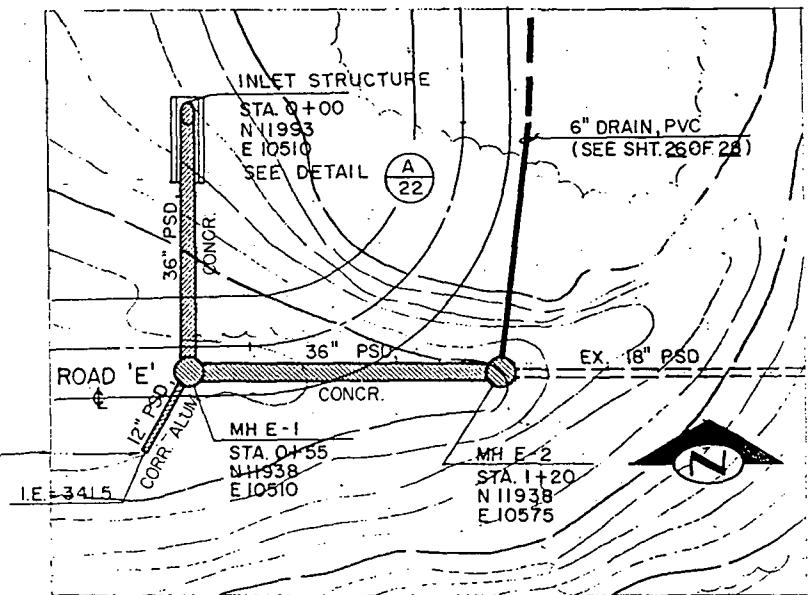
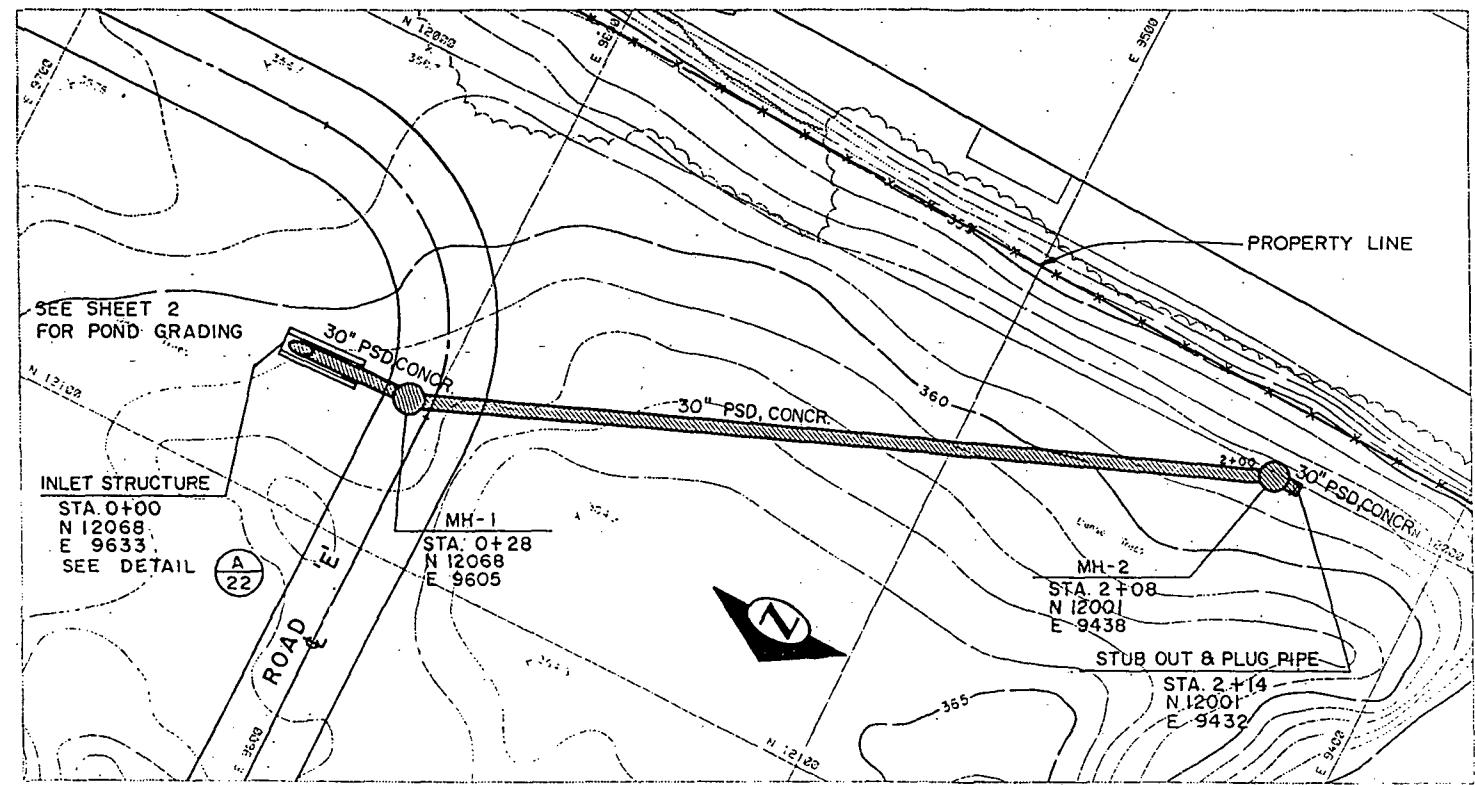
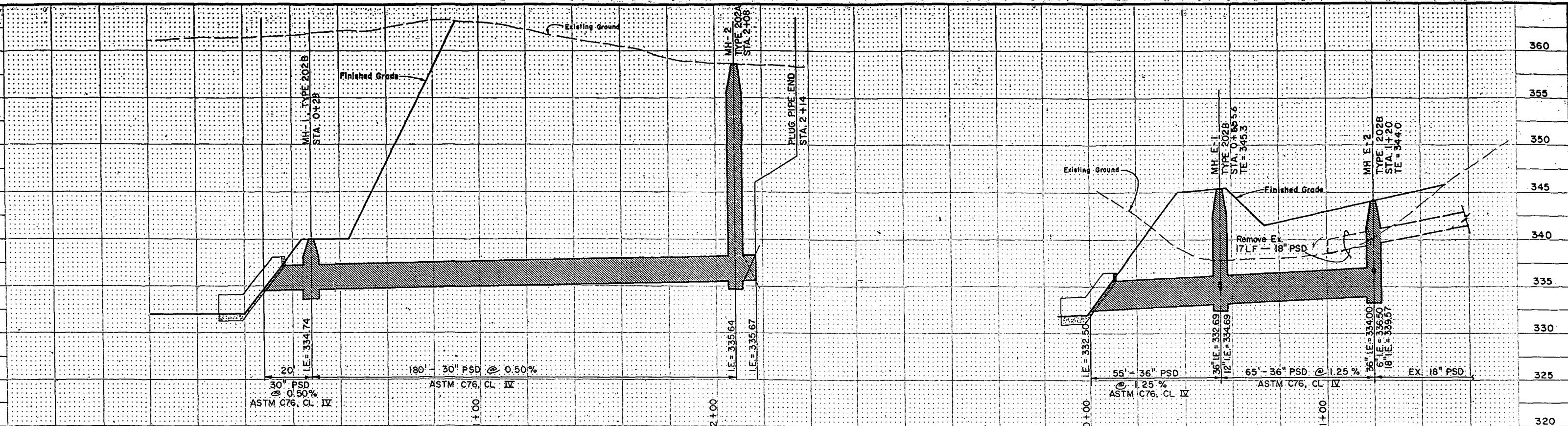
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Grading Plan  
MIDWAY ON-SITE GRADING & DRAINAGE

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SHEET 4 OF 28	21-1550-15-D004



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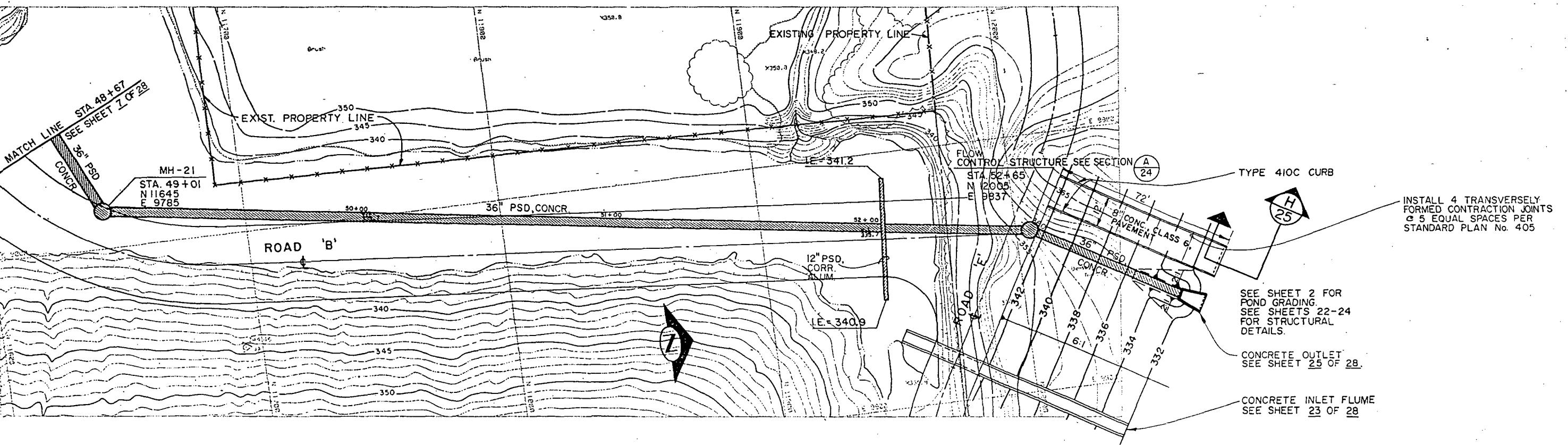
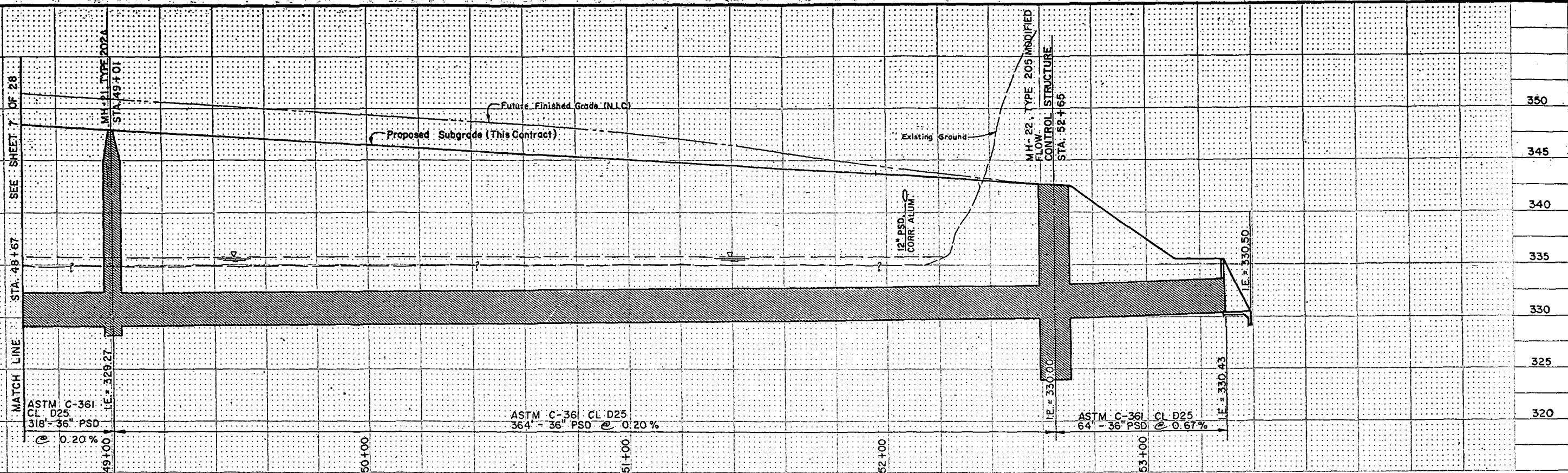
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## Storm Drain Plan & Profile MIDWAY ON-SITE GRADING & DRAINAGE

JOB NO. PC  
R/W.  
CO.  
VAULT PLAN NO. 774-20  
SHEET 5 OF 28



**rametrix, Inc.**  
One Bot 400 • 13020 Northup Way, Suite 8 • 4020 Auto Center Way  
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no 437-6128 466-2550 377-0714



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effect on the date

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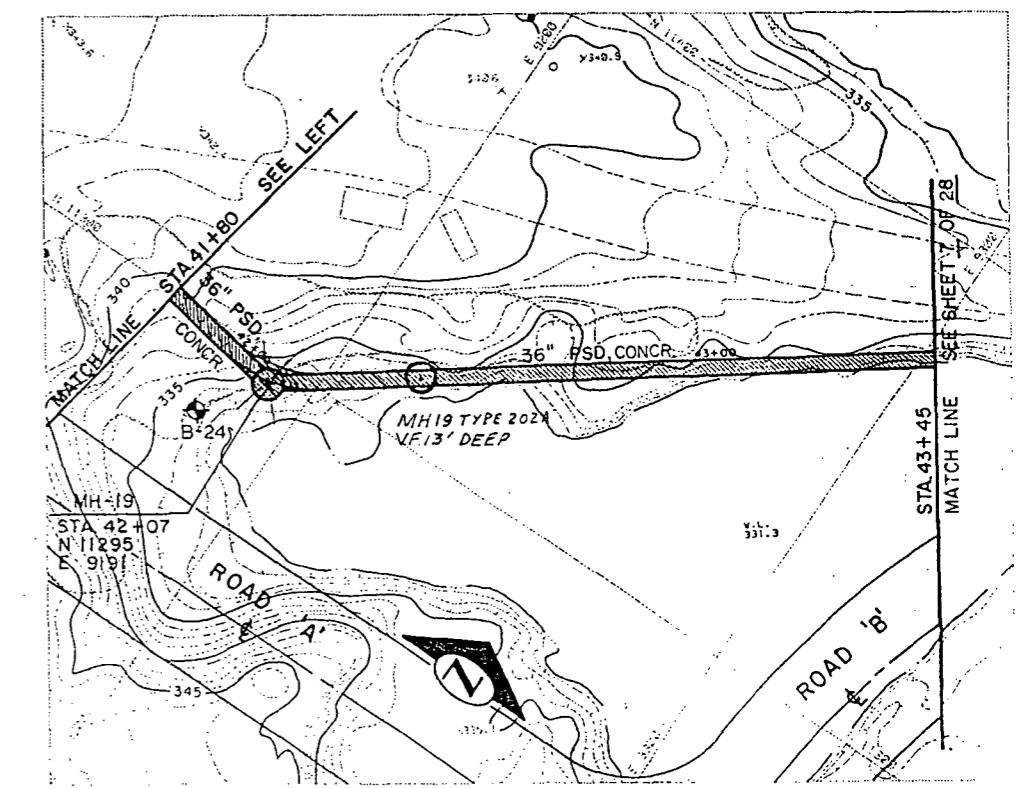
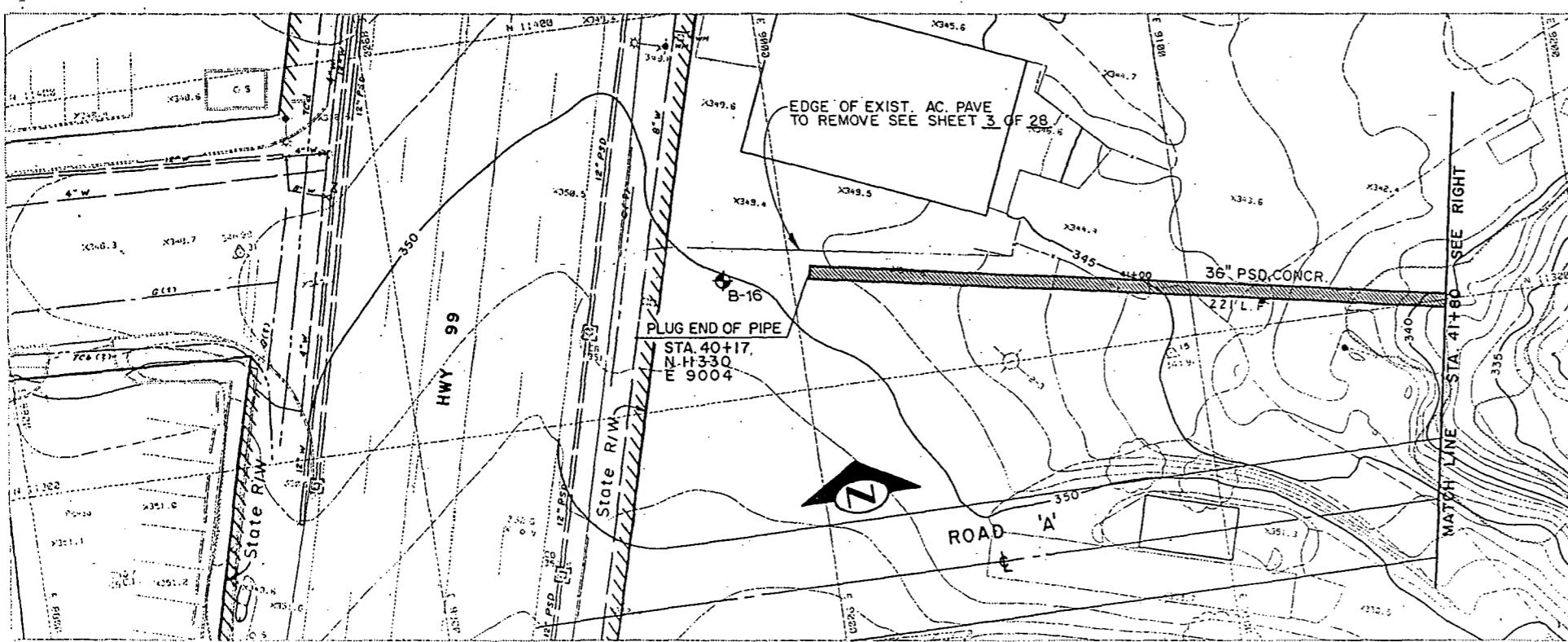
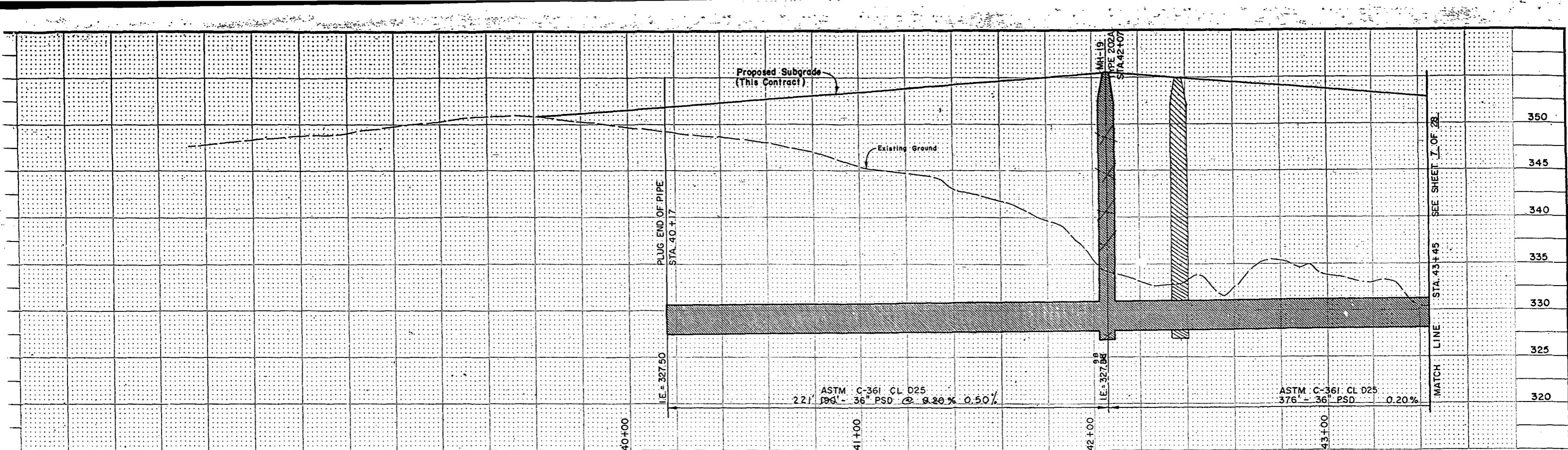
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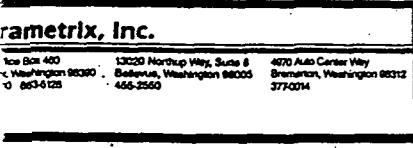
## **Storm Drain Plan & Profile**

## MIDWAY ON-SITE GRADING & DRAINAGE





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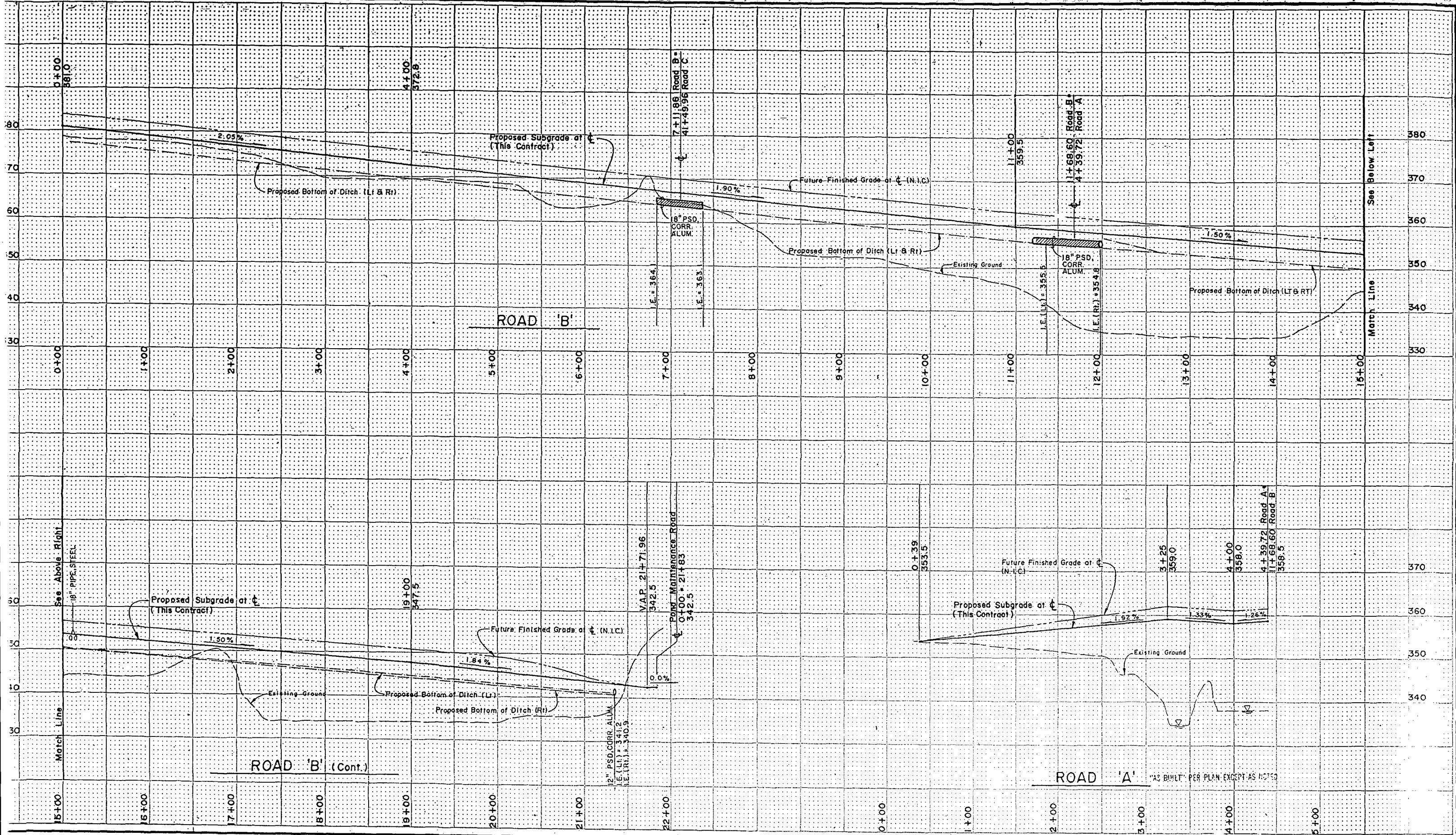
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Storm Drain Plan & Profile  
MIDWAY ON-SITE GRADING & DRAINAGE

NO. PC  
NW CO  
VAULT PLAN NO. 774-20  
SHEET 8 OF 28



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4 Washington 98330  
10 853-5128  
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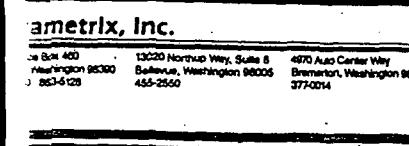
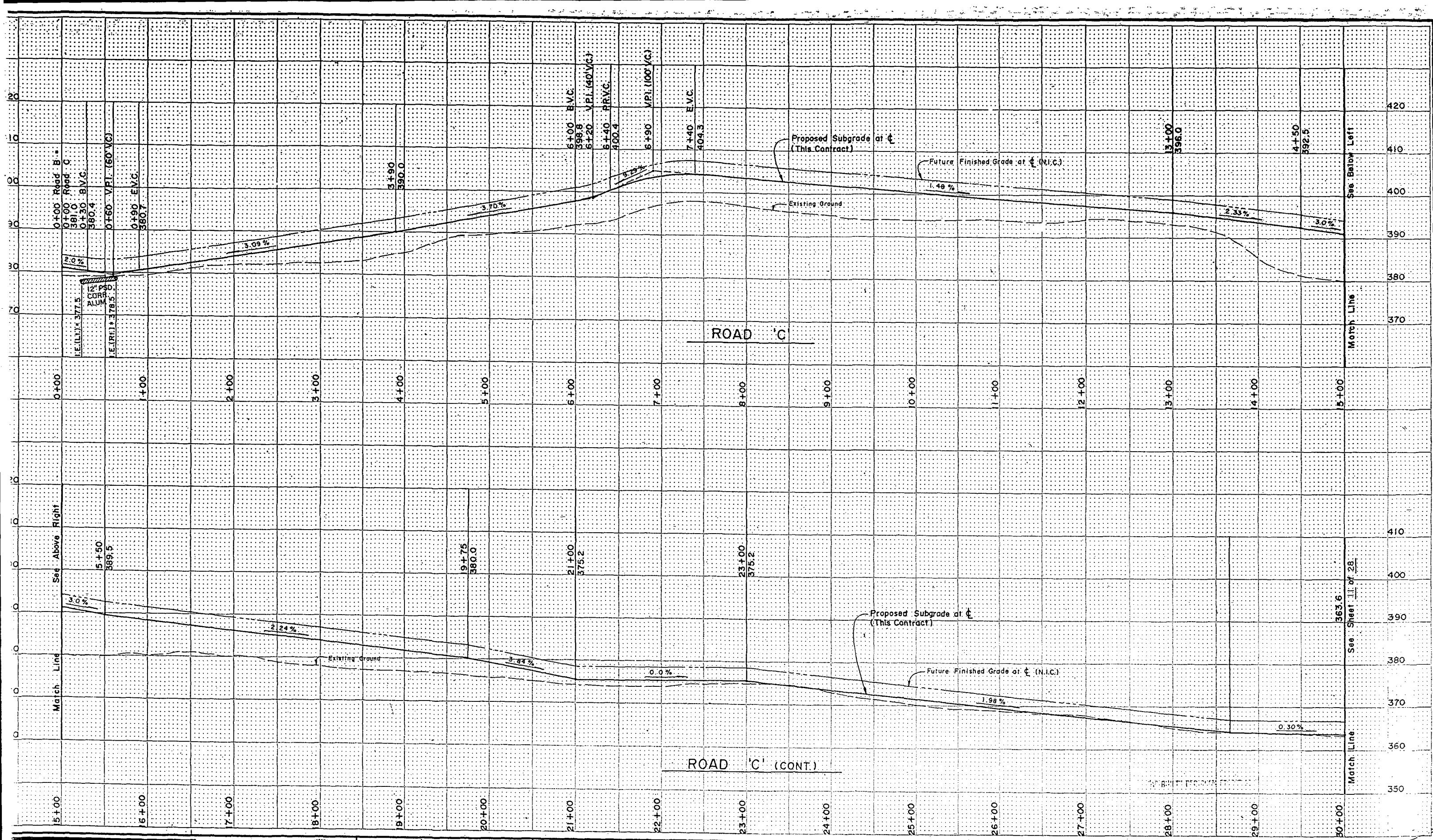
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## Road Profiles

# MIDWAY ON-SITE GRADING & DRAINAGE



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CHECKED *R.V.H.*

RECEIVED *Dean H. Sibley, P.E., D.L.*

DESIGN REVIEW *R.V.H.*  
REVISED AS BUILT X.I.T. 11.30.87

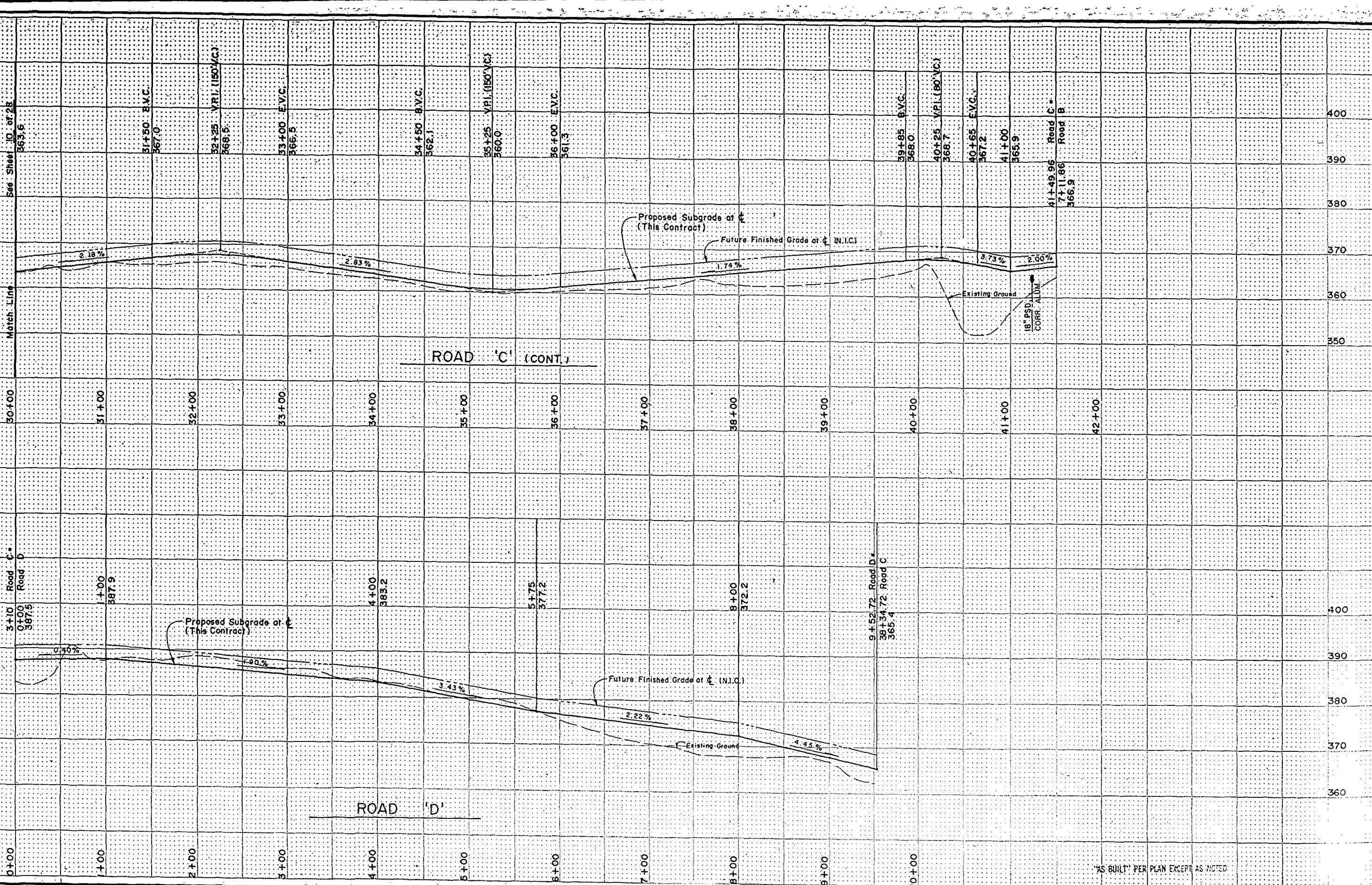
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## Road Profiles

MIDWAY ON-SITE GRADING & DRAINAGE

JOB NO. PC  
R/W CO.  
774-20  
SHEET 10 OF 28



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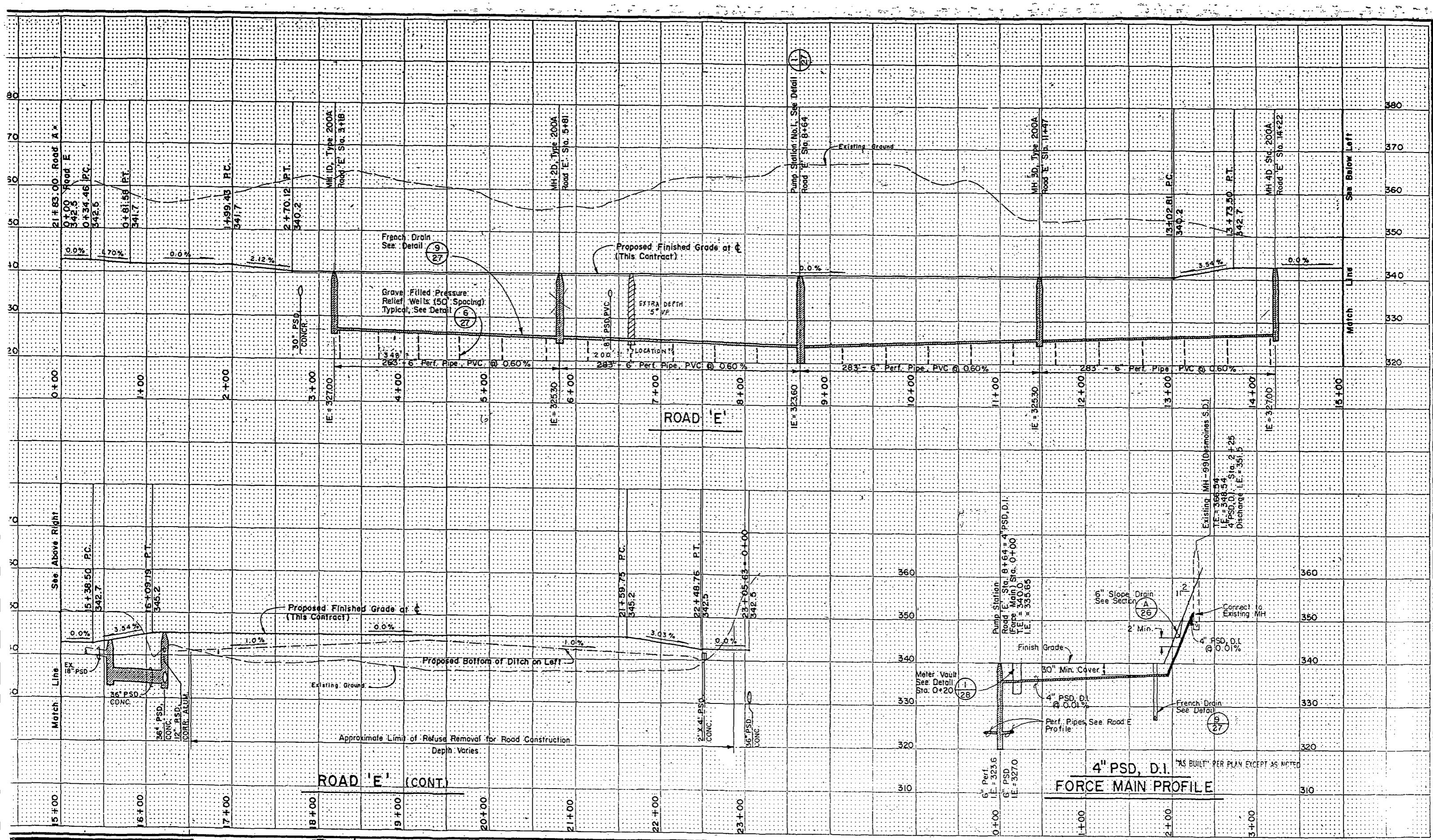
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RECEIVED	<i>Diamond Sols. 8/14/77</i>
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## Road Profiles

# MIDWAY ON-SITE GRADING & DRAINAGE

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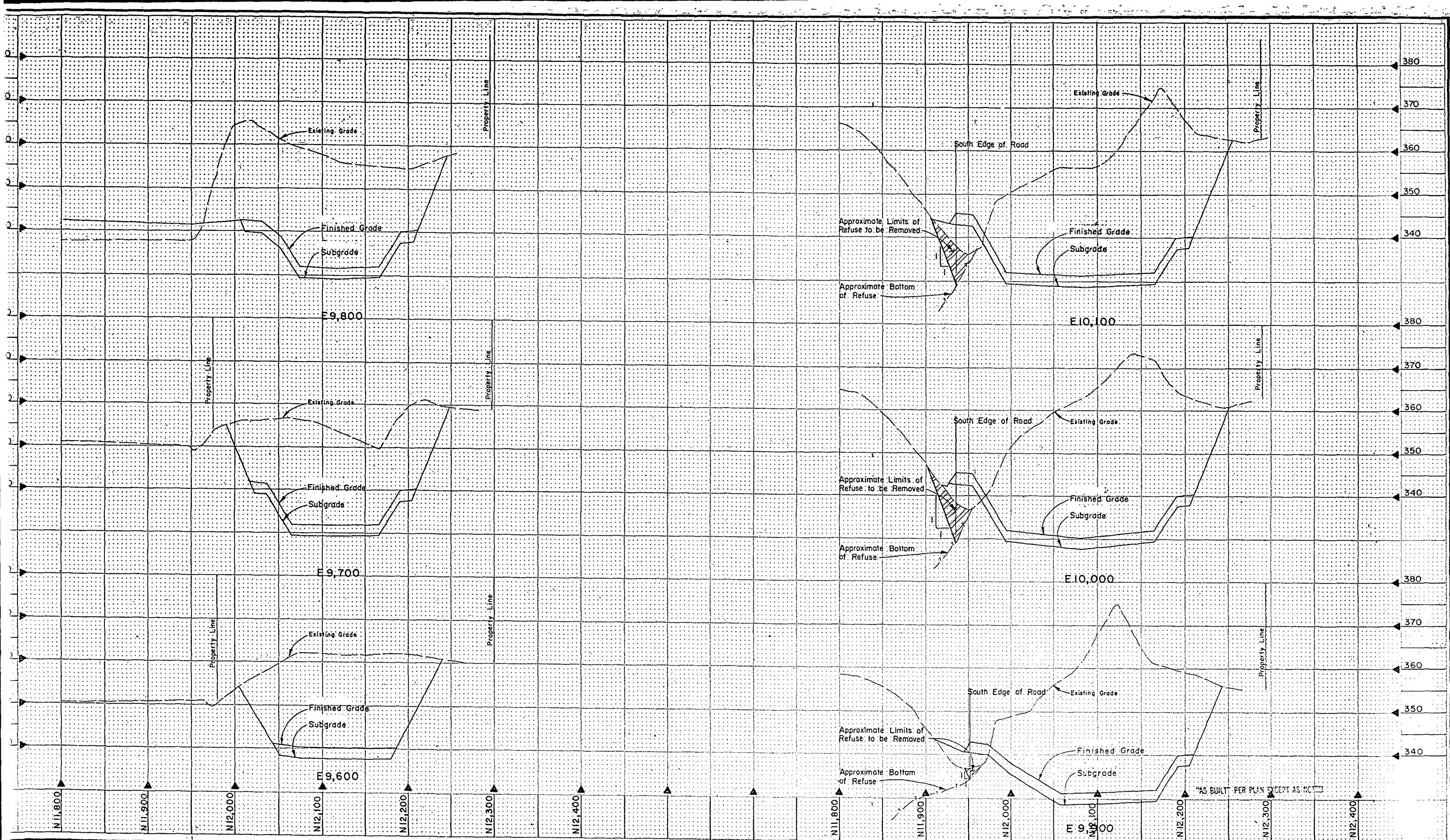
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FUND: *214-1967*  
SCALE: H. 1" = 50' V. 1" = 10'  
INSPECTOR'S BOOK NO. *214-1967*

### Road Profiles

### MIDWAY ON-SITE GRADING & DRAINAGE

JOB NO. *PC*  
R/W CO.  
774-20  
SHEET 12 OF 28



ametrix, Inc.

Box 460 • 13020 Northup Way, Suite 8 • 4970 Auto Center Way  
Redmond, WA 98053-4600 • 800-334-2263 • 425-868-2263

Seattle, Washington 98103      Bremerton, Washington  
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TRANS. SVC.	PROJ. MGR.
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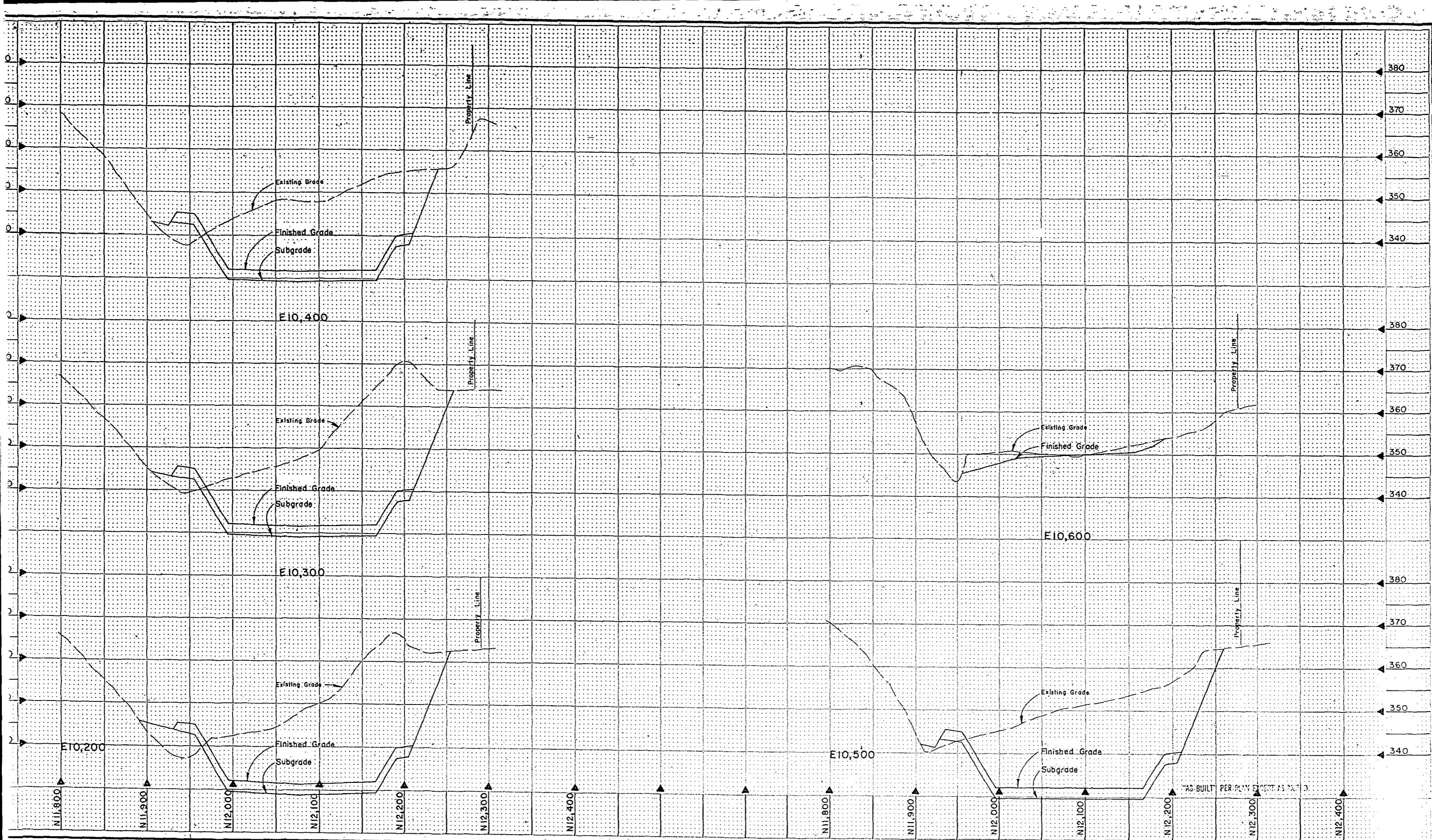
THE CITY OF SEATTLE  
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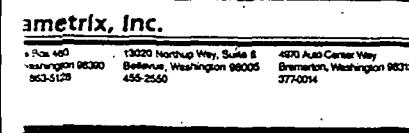
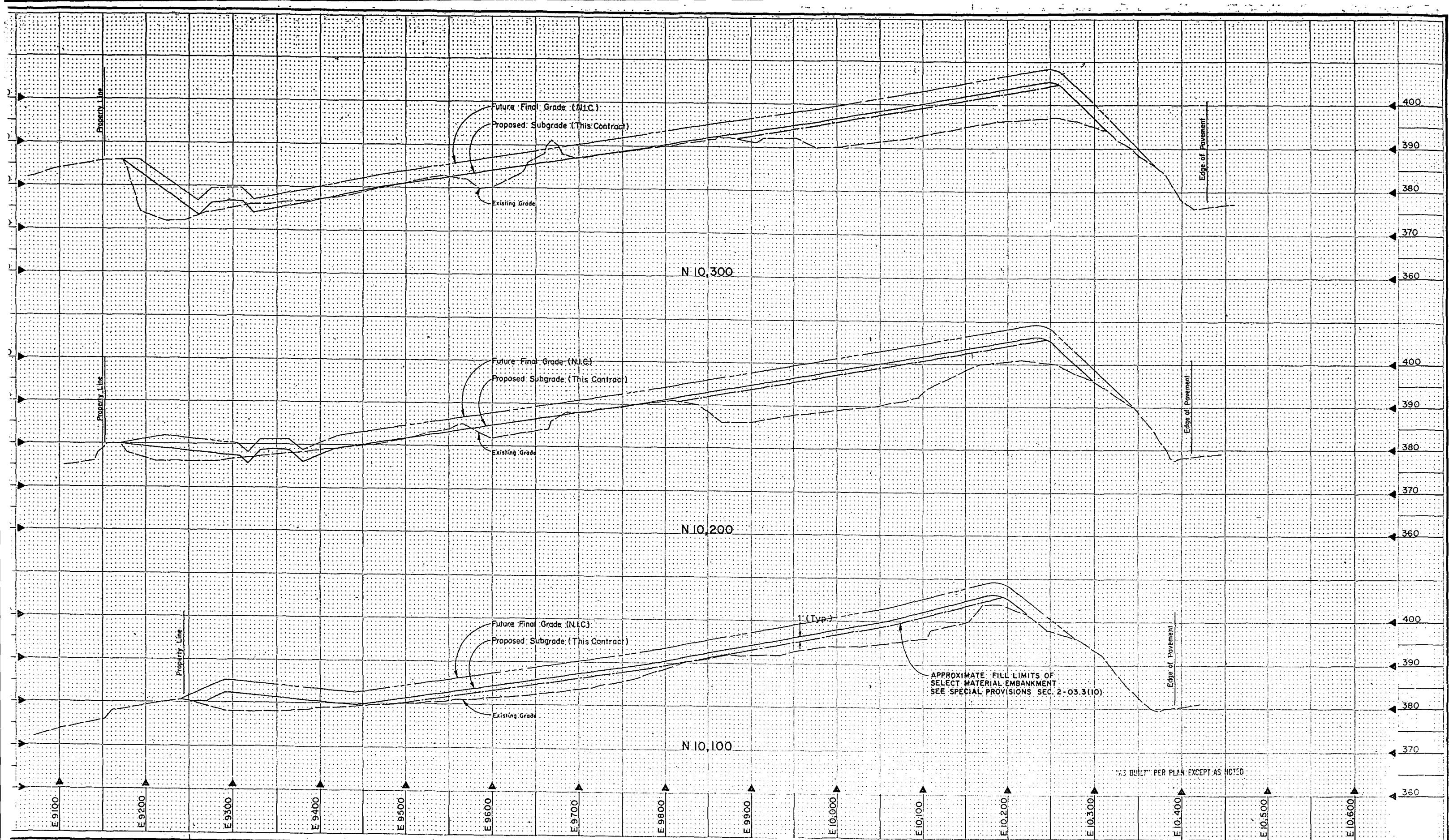
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## MIDWAY ON-SITE GRADING & DRAINAGE

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Executive Secretary PROJECT NO.

DESIGNED *[Signature]* DRAWN *[Signature]* CHECKED *[Signature]* RECEIVED *[Signature]* APPROVED *[Signature]*

TRANS. SVC. *[Signature]* CONST. *[Signature]* PROL. INCORP. *[Signature]*

REvised AS BUILT H.L.T. *[Signature]* 8/14/87

REVISED AS BUILT H.L.T. *[Signature]* 8/14/87

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

PC  
R/W  
CO

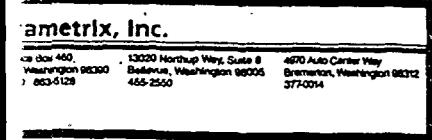
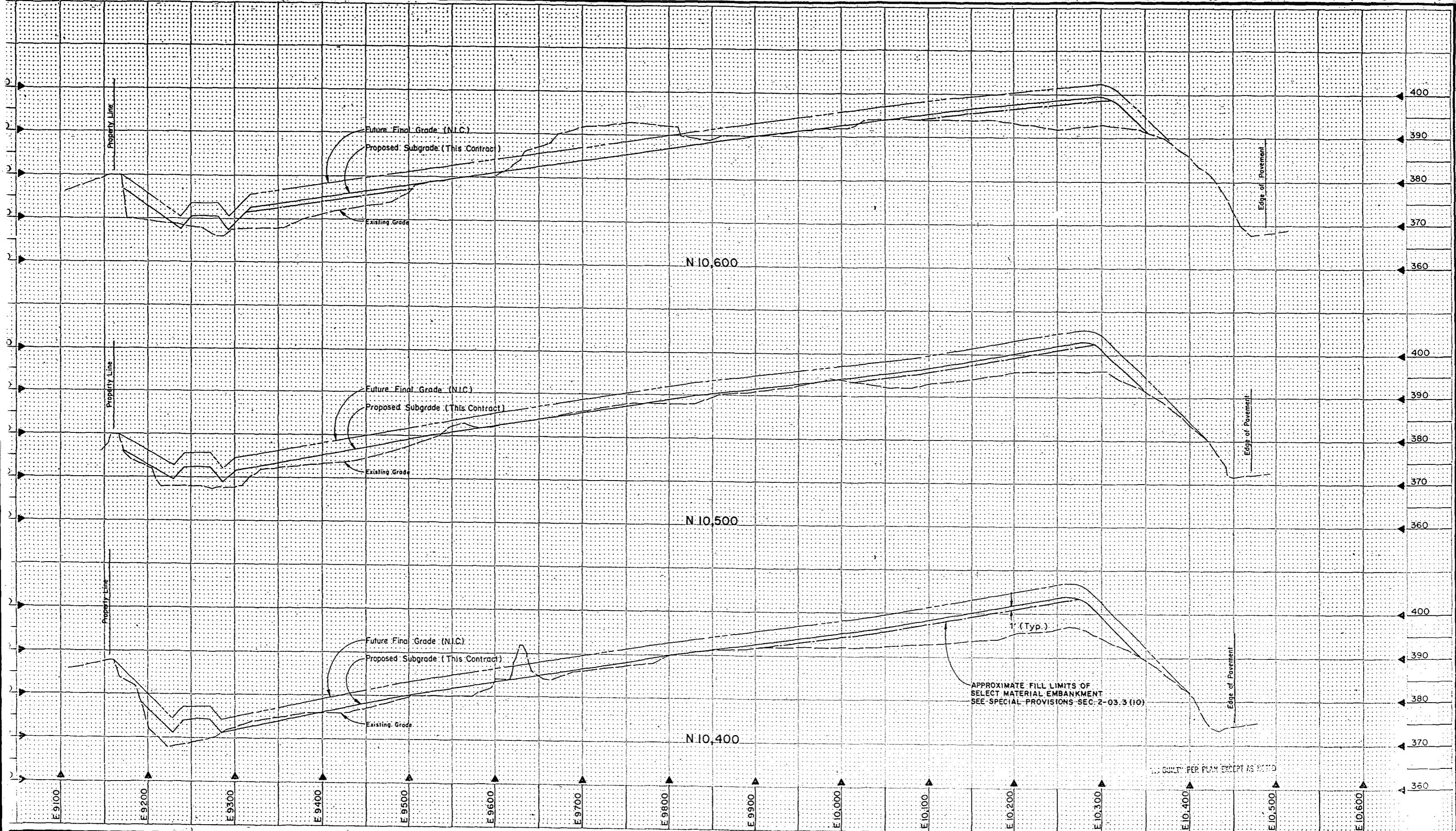
774-20

SHEET 15 CF 29

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. *[Signature]* APPROVED *[Signature]*  
FUND: *[Signature]*  
SCALE: H. 1" = 50' V. 1" = 10' INSPECTOR'S BOOK NO. *[Signature]*

X - Sections

MIDWAY ON-SITE GRADING & DRAINAGE



APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON

ATTEST:  
*Barbara L. Johnson*

CHAIRMAN  
EXECUTIVE SECRETARY

PROJECT NO.

NAME OR INITIALS AND DATE  
DESIGNED *PC* CHECKED *PC*  
DRAWN *PC* CHECKED *PC*  
DESIGN REVIEW *PCV* REVISED AS BUILT H.T. 11-30-90

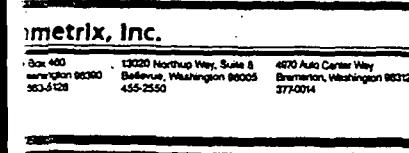
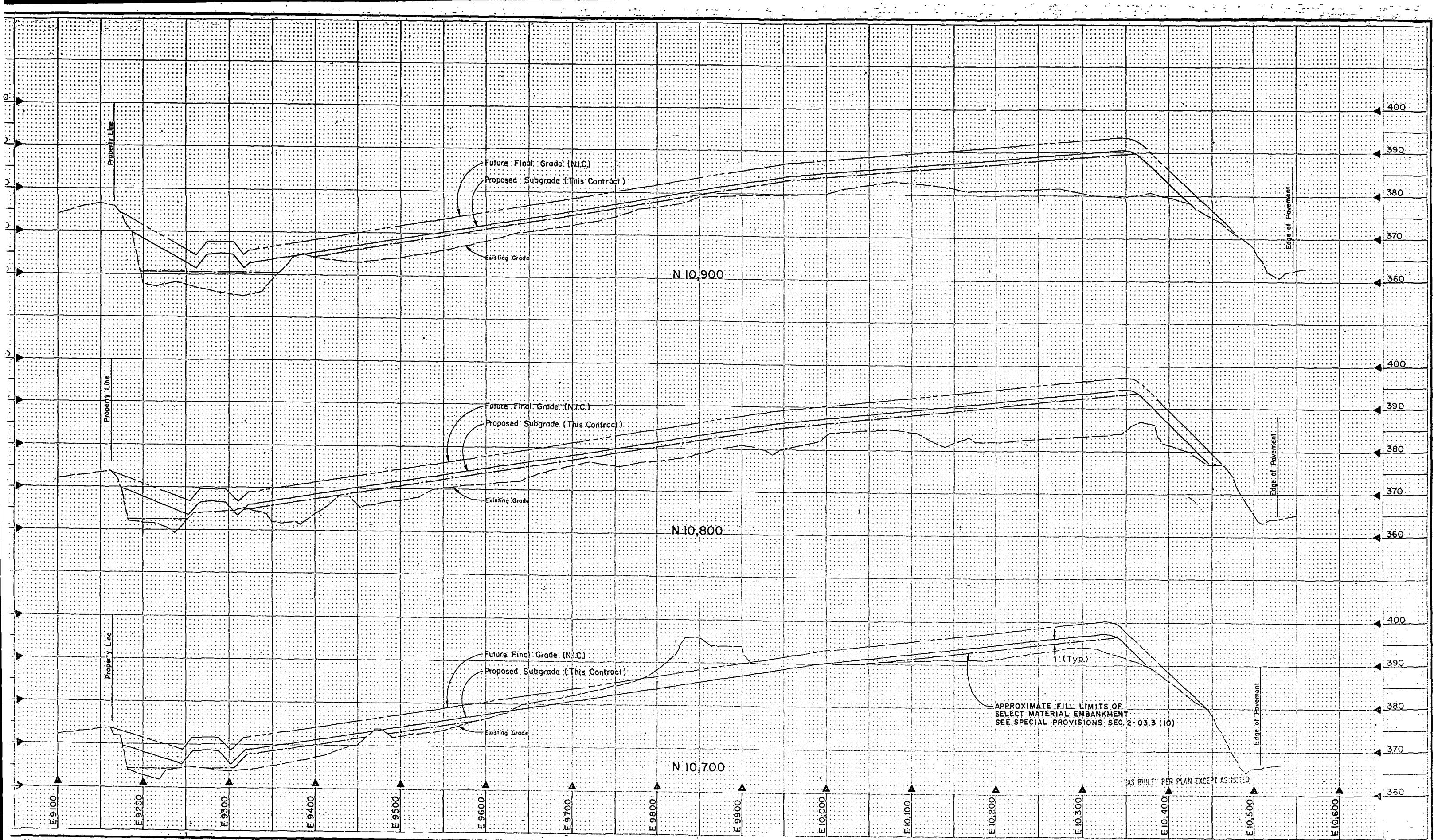
All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

INITIALS AND DATE  
REVIEWED: *PC* CONST. *PC*  
TRANS. SVC. *PC* PROJ. MGR. *PC*  
RECEIVED *PC* DATE *PC* BY *PC*

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO.  
FUNDING  
SCALE: H. 1" = 50' V. 1" = 10' INSPECTOR'S BOOK NO.

X - Sections  
MIDWAY ON-SITE GRADING & DRAINAGE

PC  
R/W  
CO  
774-20  
SHEET 16 OF 28



APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON  
ATTEST:  
*Robert J. Lederer*  
EXECUTIVE SECRETARY

3/14/1987  
PROJECT NO.

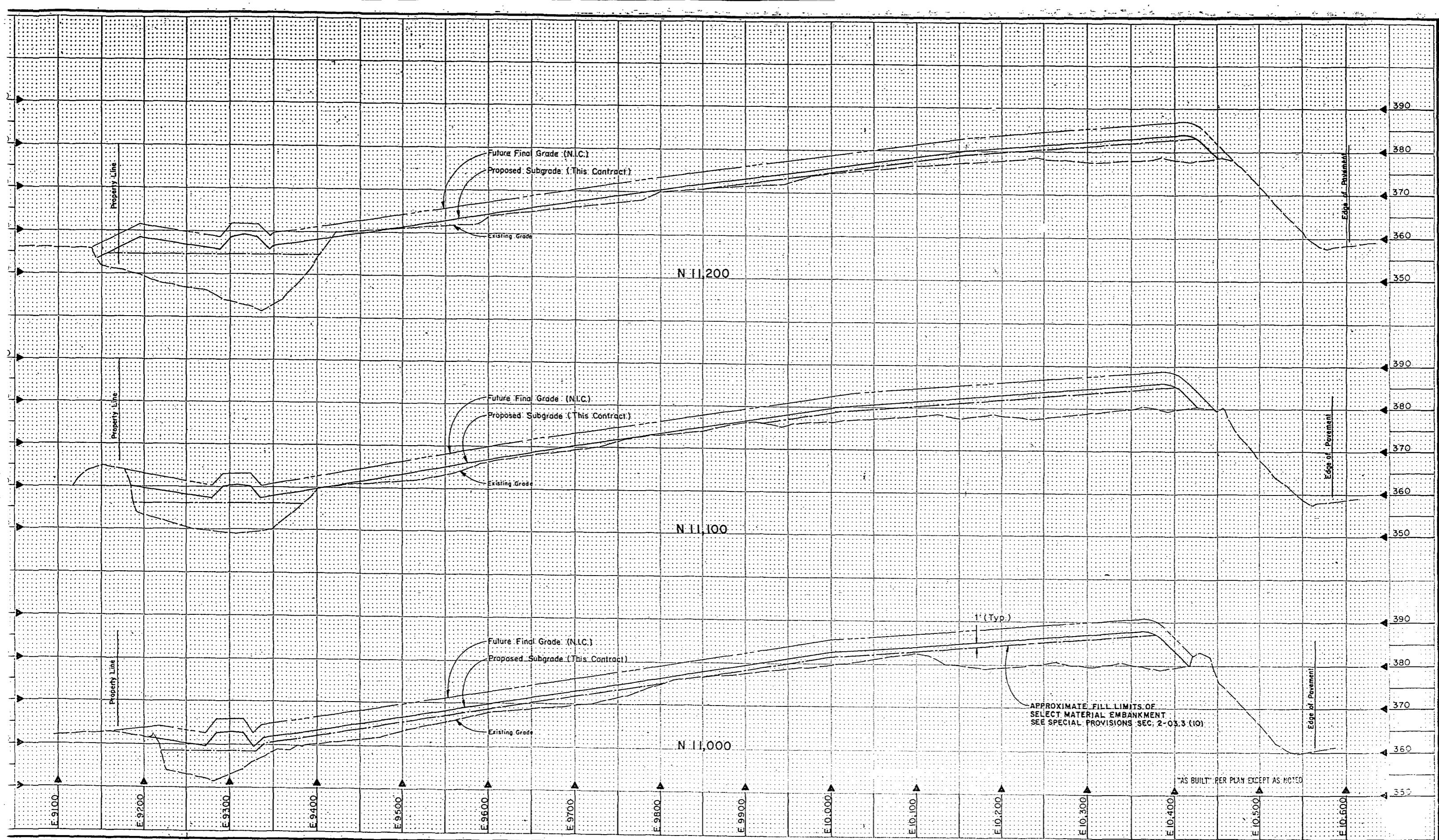
NAME OR INITIALS AND DATE  
DESIGNED *RLH* 3/14/1987  
CHECKED  
DRAWN  
RECEIVED *D. G. G.* 3/14/1987  
DES. REVIEWED *RVH*  
PROJECT NO.

INITIALS AND DATE  
REVIEWED  
DES. CONST.  
TRANS. SVC. PULL GRAVEL  
CHECKED  
REVISED AS BUILT H.I. 3/14/1987  
All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. APPROVED  
FUND: INSPECTOR'S BOOK NO.  
SCALE: H. 1" = 50' v. 1" = 10'

X - Sections  
MIDWAY ON-SITE GRADING & DRAINAGE

JOB NO. PC  
R/W CO  
774-20  
SHEET 17 OF 29



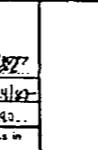
ametrix, Inc.  
P.O. Box 400 • 13020 Northup Way, Suite 8 • 4870 Auto Center Way  
Seattle, Washington 98133 • Bellevue, Washington 98005 • Bremerton, Washington 98312  
ECS-4-128 456-2560 377-0074



APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE, WASHINGTON  
ATTEST:  
*Donald J. Johnson*  
EXECUTIVE SECRETARY  
PROJECT NO. 100-1007

NAME OR INITIALS AND DATE  
DESIGNED *DRJ* CHECKED *DRJ*  
DRAWN *DRJ* RECEIVED *DRJ*  
CHECKED *DRJ* DESIGN REVIEW *RVE*  
All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

INITIALS AND DATE  
REVIEWED: DES. CONST. TRANS. SVC. PROJ. MGR.  
RECEIVED: DESIGNER H. COLE 9/4/67  
REVISED AS BUILT H.L. IL 30-43

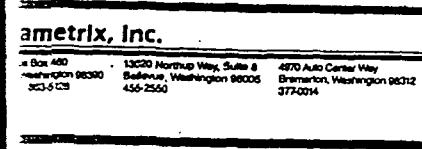
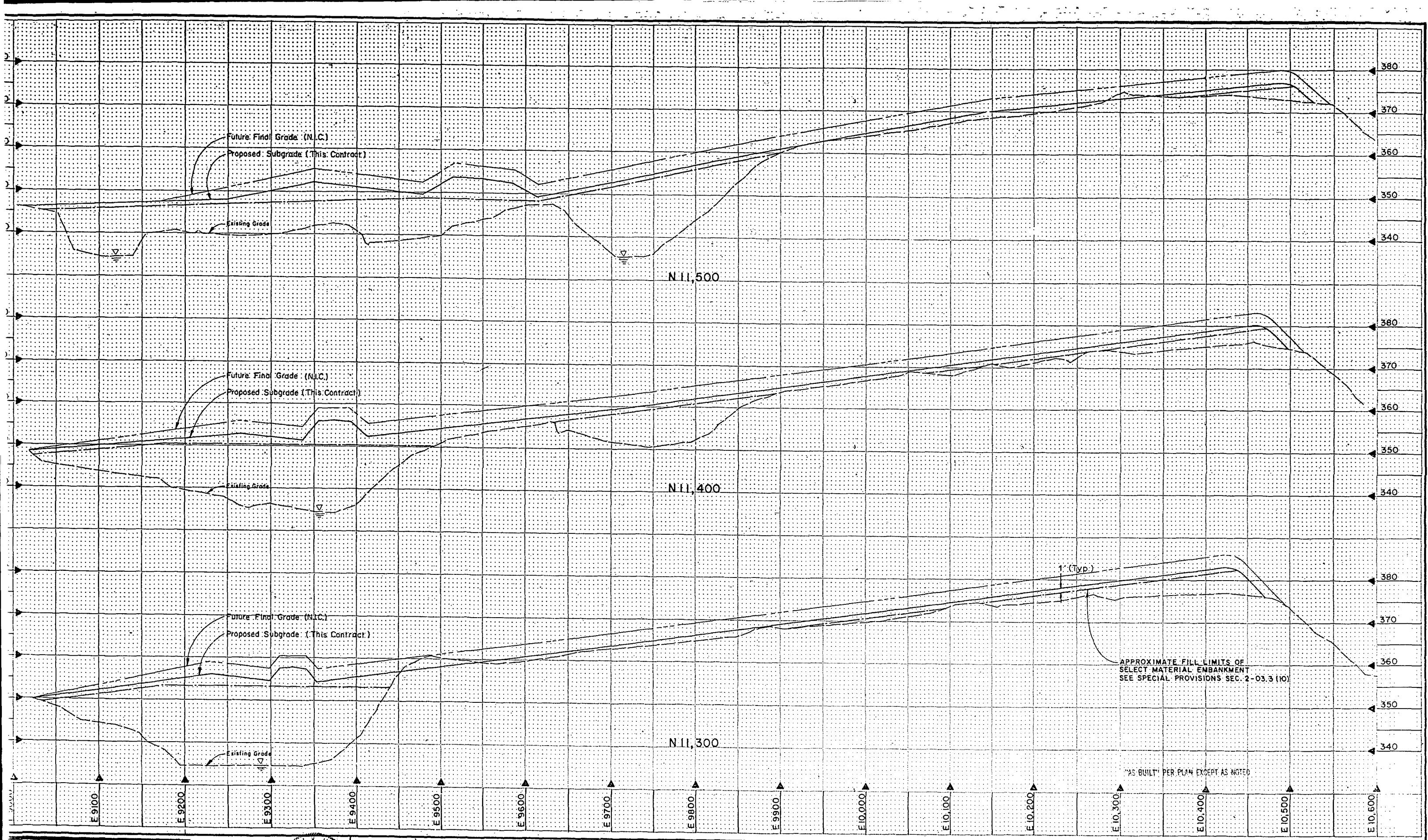


THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. APPROVED  
FUND: SCALE: H. 1" = 50' V. 1" = 10' INSPECTOR'S BOOK NO.

### X - Sections

MIDWAY ON-SITE GRADING & DRAINAGE

PC:	774-20
RAW:	
CO:	
SHEET:	19
OF:	28



APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON

ATTEST:  
*Barbara J. Palus*  
EXECUTIVE SECRETARY

CHAIRMAN  
PROJECT NO.

NAME OR INITIALS AND DATE  
DESIGNED *CDL* INITIALS AND DATE  
CHECKED *CDL* REVIEWED: *CDL*  
DRAWN *CDL* CONST. *CDL*  
TRANS. SVC. *CDL* PROJ. MGR. *CDL*  
CHECKED *CDL*  
RECEIVED *Diana H. Gatz* *CDL*  
DESIGN REVIEW *PVD* REVISED AS BUILT H.T. 11.30.90

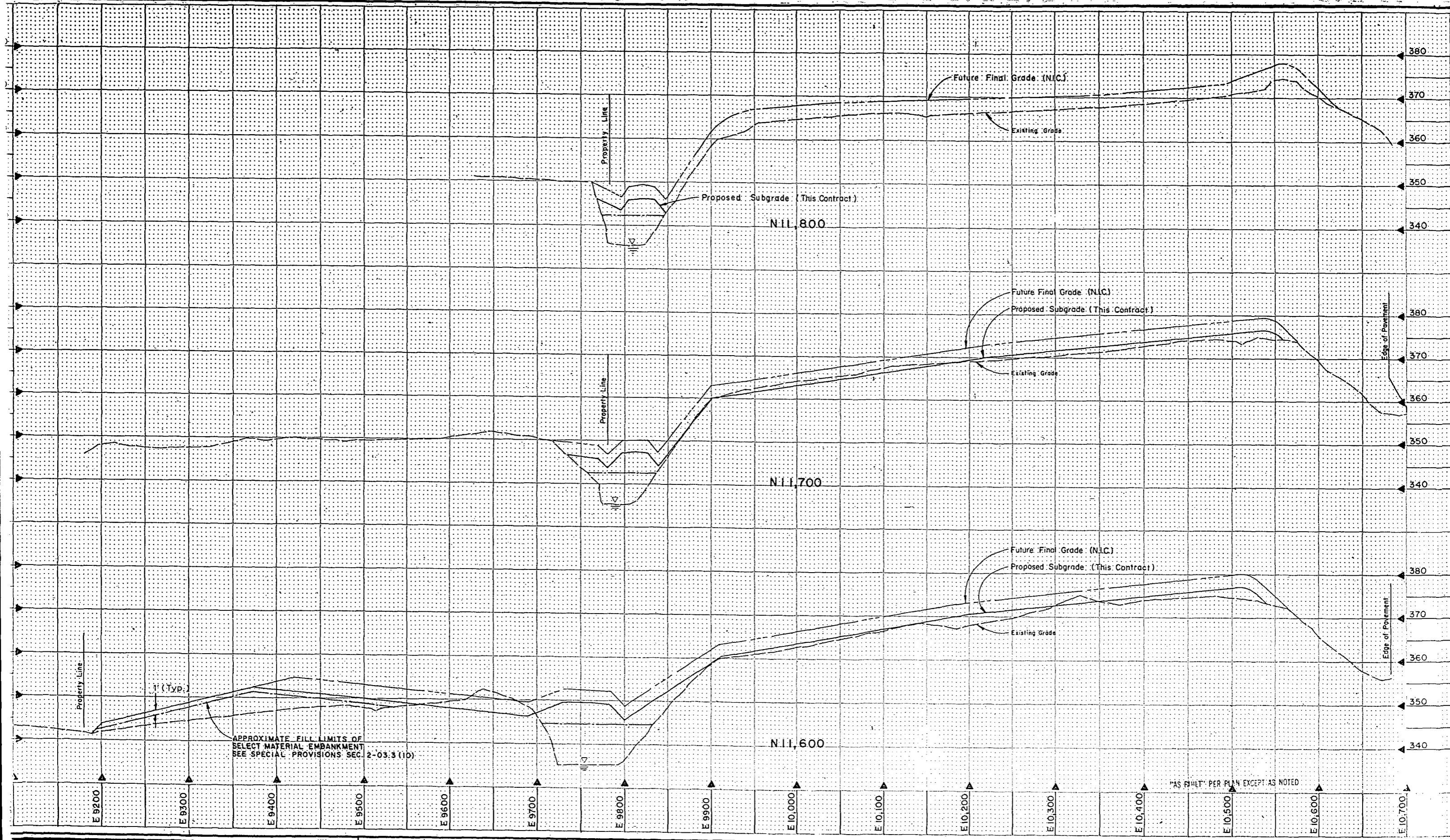
All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

**THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING**

ORDINANCE NO. *CDL* APPROVED  
FUND: *CDL*  
SCALE: H. 1" = 50' V. 1" = 10' INSPECTOR'S BOOK NO. *CDL*

**X - Sections**  
**MIDWAY ON-SITE GRADING & DRAINAGE**

PC  
R/W  
CO  
774-20  
SHEET 19 OF 25



metrix, Inc.



APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC  
SEATTLE WASHINGTON

TISING  
C WORKS  
8/4

JECT N

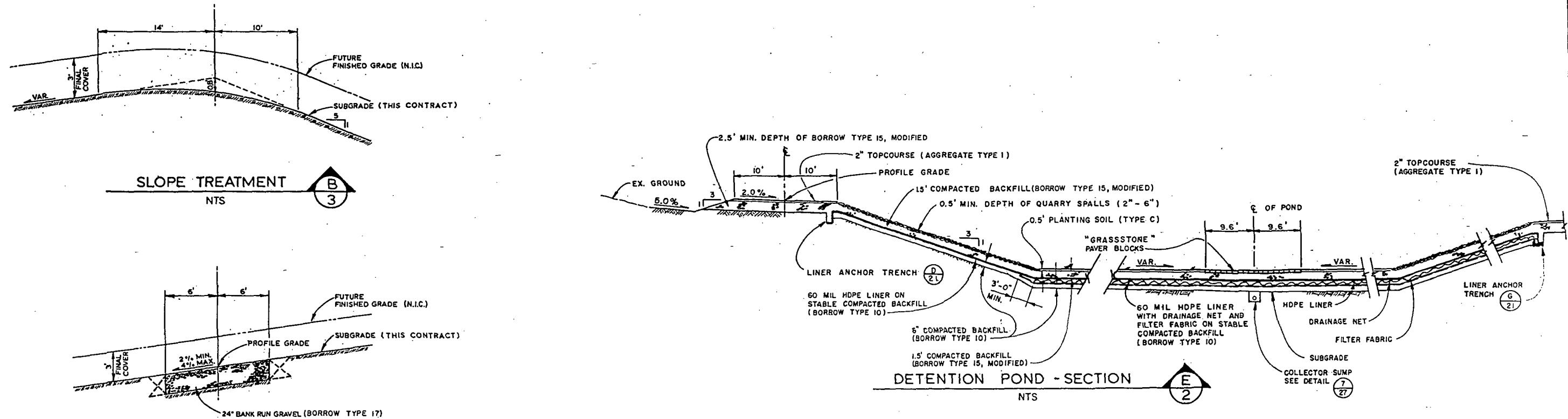
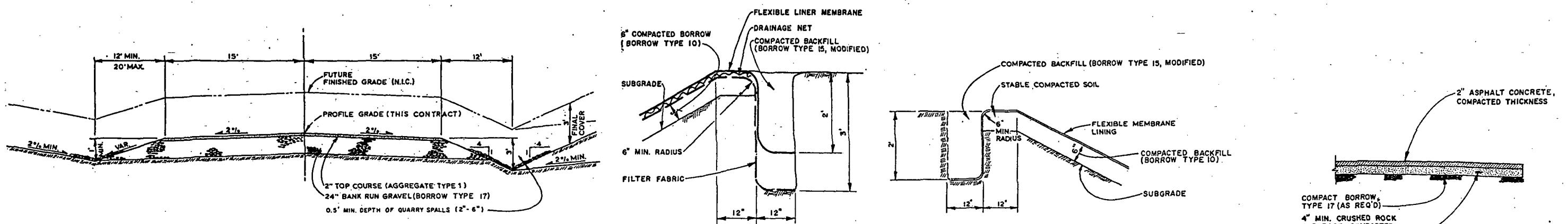
NAME OR INITIALS AND DATE DESIGNED <u>John</u>	INITIALS AND DATE REVIEWED:
CHECKED _____	DES. CONST.
DRAWN _____	TRANS. SVC. PROJ. MGR.
CHECKED <u>John</u>	RECEIVED <u>Deane H. Gandy</u>
DESIGN REVIEW <u>John</u>	REVISED AS BUILT H. T. 11-30
All work done in accordance with the City of Seattle Standard Plans and Specifications effect on the date shown above, and supplemented by Special Provisions.	

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING

## X - Sections

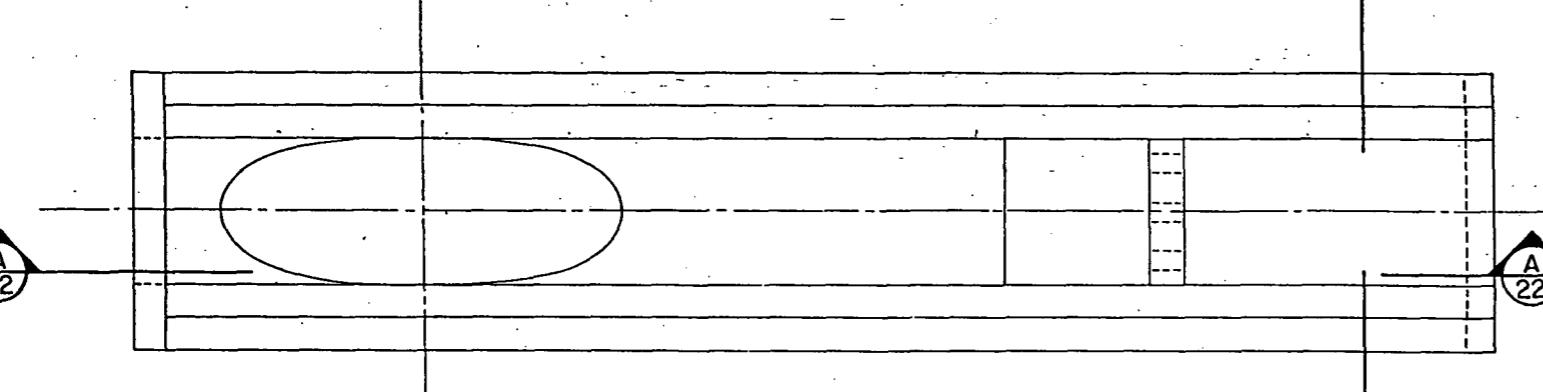
## MIDWAY ON-SITE GRADING & DRAINAGE

PC _____  
R/W _____  
CO _____



"AS BUILT" P.P. PLAN EXCEPT AS NOTED

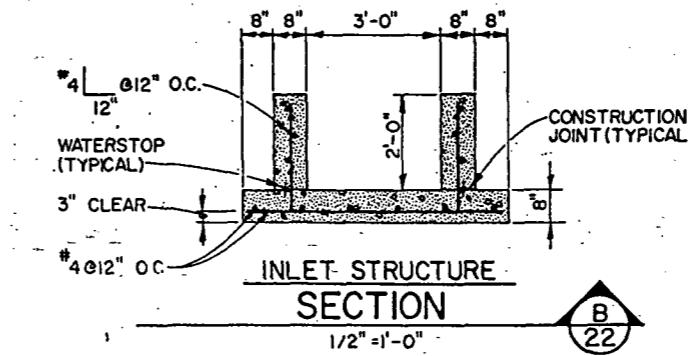
rametrix, Inc.	APPROVED FOR ADVERTISING BY THE BOARD OF PUBLIC WORKS SEATTLE WASHINGTON 8/14/87 ATTEST: <i>[Signature]</i> EXECUTIVE SECRETARY	NAME OR INITIALS AND DATE DESIGNED _____ CHECKED _____ DRAWN _____ CHECKED _____ DESIGN REVIEW <i>PW</i> _____	INITIALS AND DATE REVIEWED: _____ OES: _____ CONST: _____ TRANS. SVC: _____ PROJ. MGR: _____ RECEIVED: <i>H. Gals. P.M.</i> 8/14/87 REVISED AS BUILT H.T. 11.30.90.. All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.	THE CITY OF SEATTLE DEPARTMENT OF ENGINEERING ORDINANCE NO.: FUND: SCALE: AS NOTED	APPROVED INSPECTOR'S BOOK NO.	Sections & Details <b>MIDWAY ON-SITE GRADING &amp; DRAINAGE</b>
Sea 61400 13020 Northup Way, Suite 8 Bellevue, Washington 98005 4200 Auto Center Way Seattle, Washington 98132 10-803428 455-2500 57201W	4200 Auto Center Way Seattle, Washington 98132 57201W	PC: _____ NW: _____ CO: _____	774-20 SHEET 21 OF 28			



INLET STRUCTURE

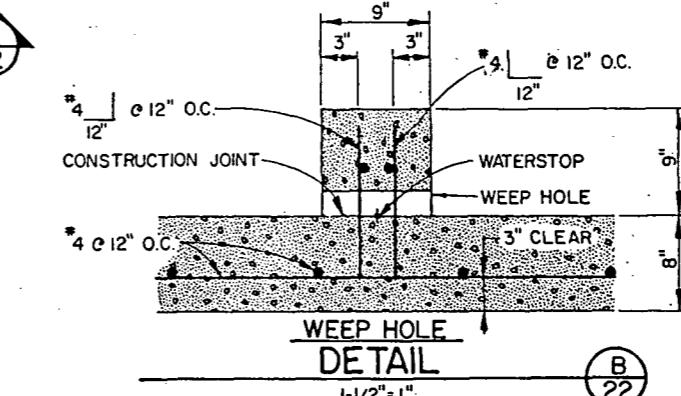
PLAN

1/2" = 1'-0"



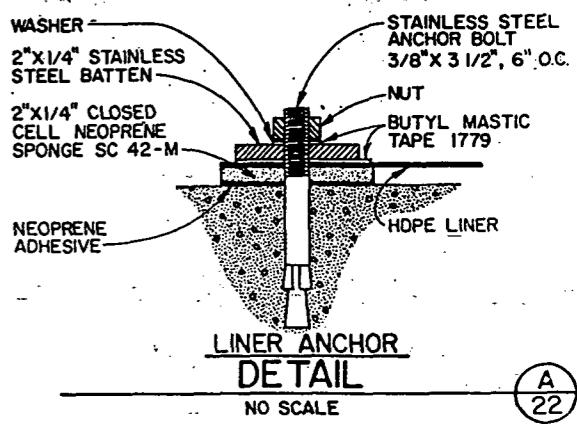
INLET STRUCTURE SECTION

1/2" = 1'-0"



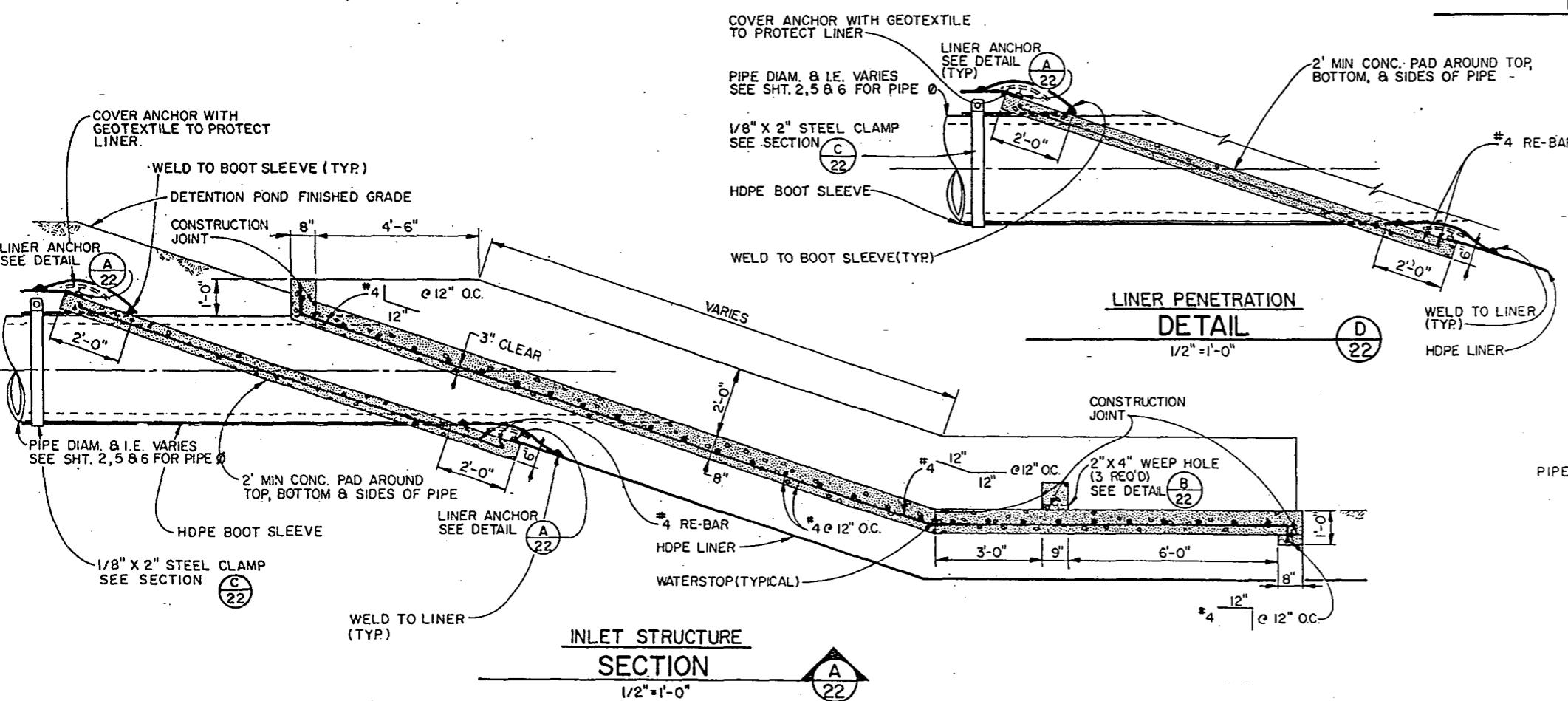
WEEP HOLE DETAIL

1-1/2" = 1"



LINER ANCHOR DETAIL

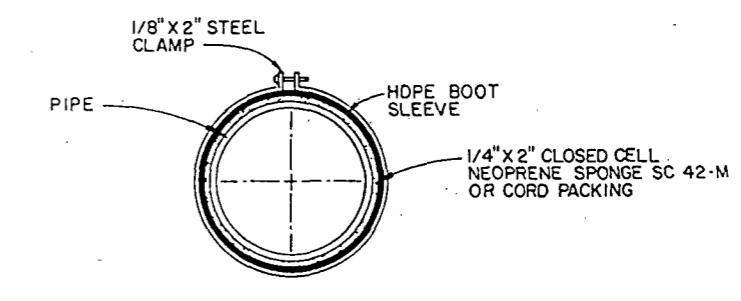
NO SCALE



INLET STRUCTURE

SECTION

1/2" = 1'-0"



STEEL CLAMP SECTION

N.T.S.

"AS BUILT" PER PLAN EXCEPT AS NOTED

arametrix, Inc.	13220 Northup Way, Suite 8 Bellevue, Washington 98005 420-2550 FAX 420-2550 TELE 420-2550 E-mail: 3770214	4670 Auto Center Way Bremerton, Washington 98312 420-2550
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APPROVED FOR ADVERTISING BY THE BOARD OF PUBLIC WORKS SEATTLE WASHINGTON	3/14/1997
ATTEST:	<i>[Signature]</i>
EXECUTIVE SECRETARY	PROJECT NO.

NAME OR INITIALS AND DATE DESIGNED CHECKED	INITIALS AND DATE REVIEWED: DES. CONST. TRANS. SVC. PROJ.MGR. 3/14/97
DRAWN CHECKED	RECEIVED: Diana N. Salt 3/14/97
DESIGN REVIEW: DWL	REVISED AS BUILT: H.T. II 3/10/90

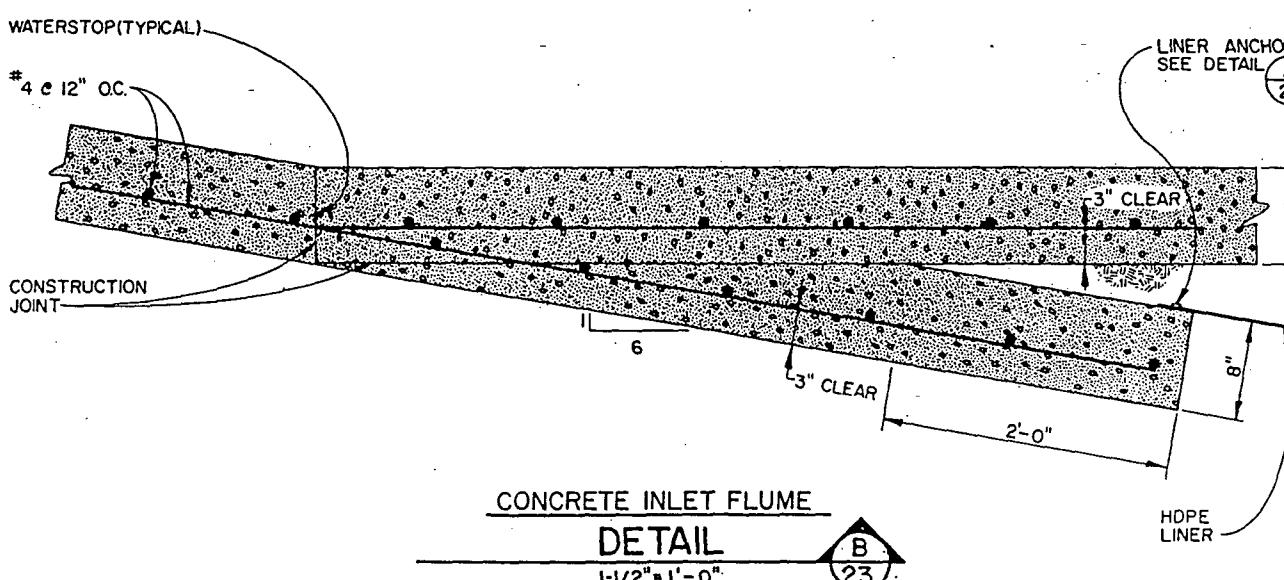
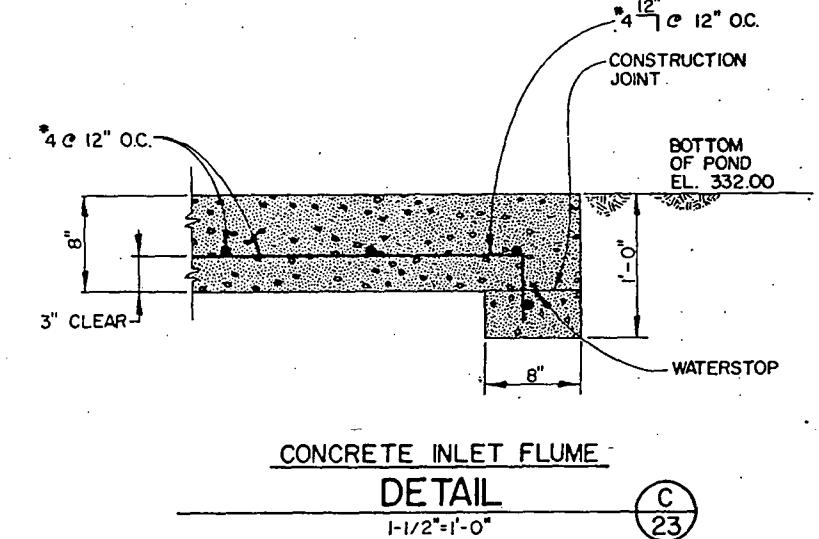
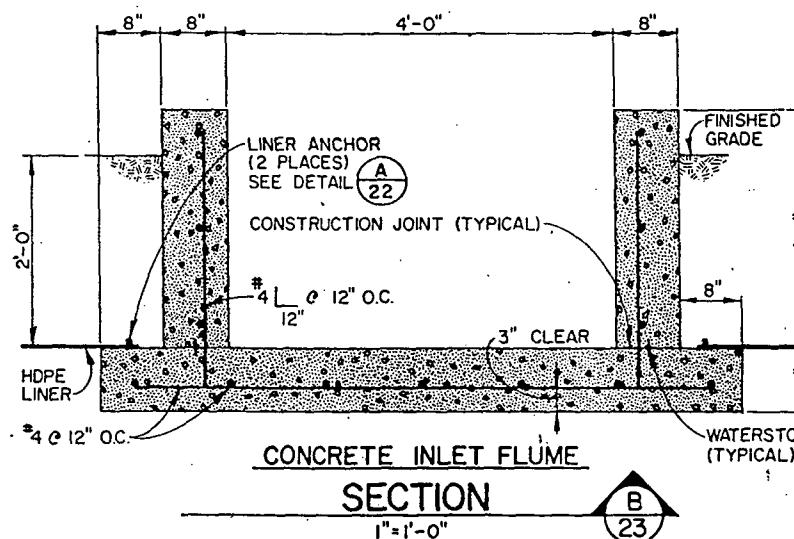
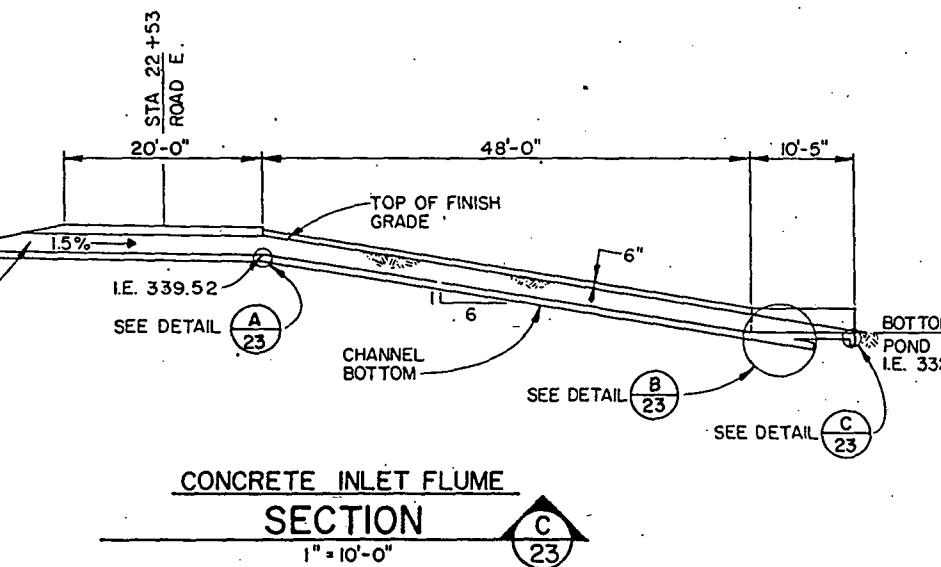
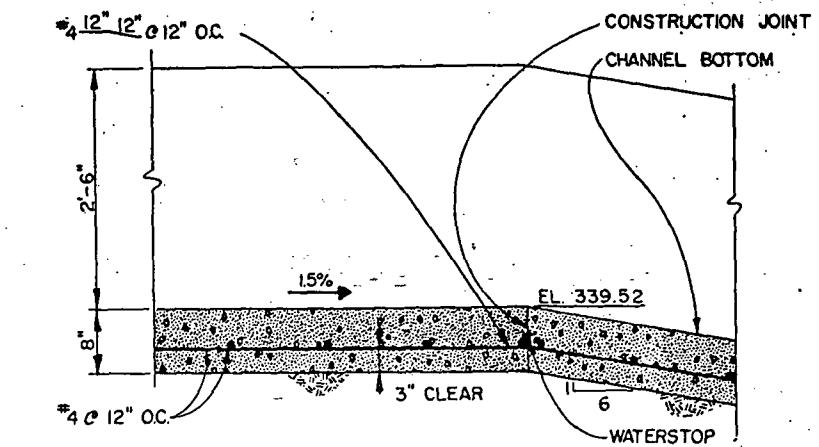
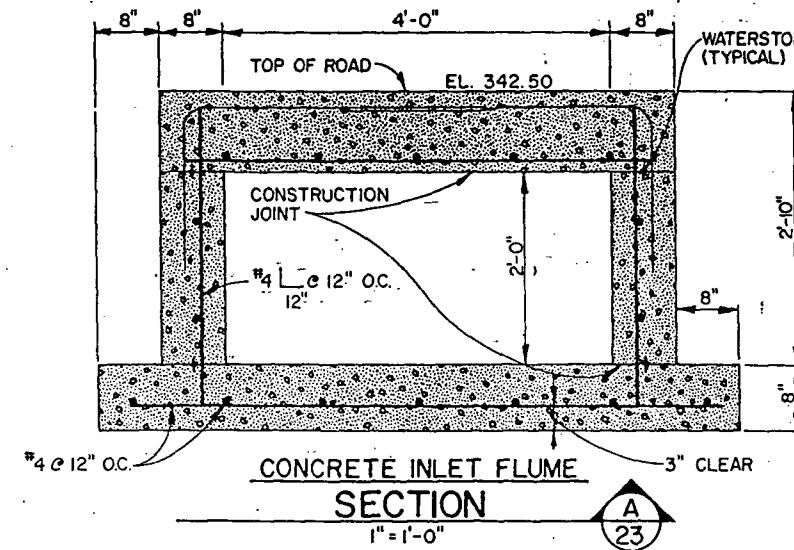
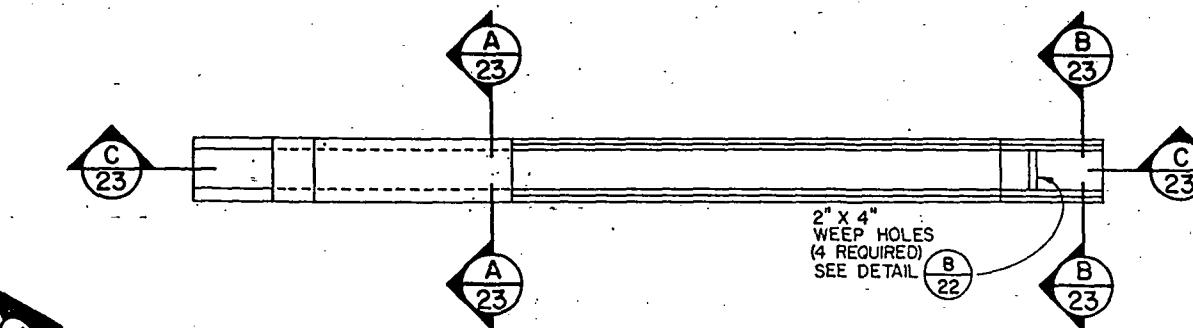
All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

THE CITY OF SEATTLE DEPARTMENT OF ENGINEERING	
ORDINANCE NO.:	APPROVED
FUND.:	V.
SCALE: 1"	INSPECTOR'S BOOK

### Structural Details

### MIDWAY ON-SITE GRADING & DRAINAGE

PC	774-20
R/W	22
CO	OF 28
VAULT PLAN NO.	774-20
SHEET	22 OF 28



"AS BUILT" PER PLAN EXCEPT AS NOTED

ametrax, Inc.	13020 Northup Way, Suite 8 Bremerton, Washington 98322 4270 Auto Center Way Bremerton, Washington 98322 445-2320
R.D.H.	ATTEST: <i>Robert D. Hause</i> CHAIRMAN EXECUTIVE SECRETARY PROJECT NO. 1987

APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON 1987  
ATTEST: *Robert D. Hause* CHAIRMAN  
EXECUTIVE SECRETARY PROJECT NO. 1987

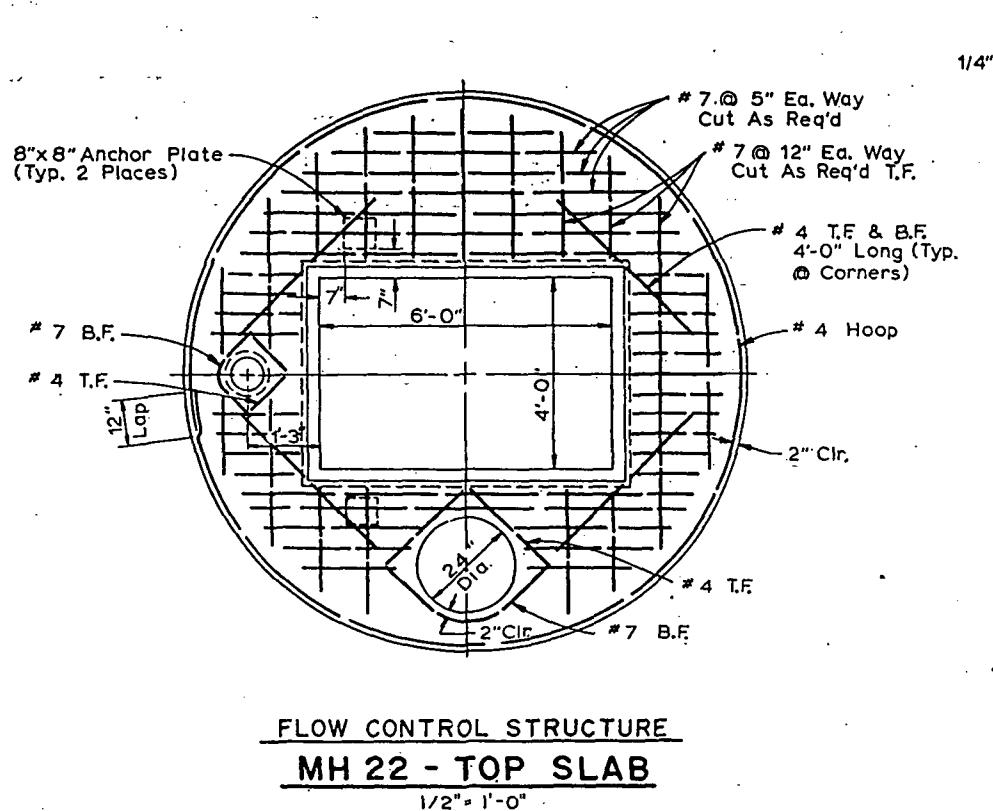
NAME OR INITIALS AND DATE  
DESIGNED _____  
DRAWN _____  
CHECKED *RDH* _____  
DESIGN REVIEW *RVH* _____  
RECEIVED *RDH* 10/12/87  
REVISED AS BUILT *H.T.* 10/30/90

INITIALS AND DATE  
REVIEWED:  
DES. CONST. PROJ. MGR. *RDH*  
TRANS. SVC.  
RECEIVED *RDH* 10/12/87  
REVISED AS BUILT *H.T.* 10/30/90

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. _____  
FUND. _____  
SCALE: H. V. INSPECTOR'S BOOK

Structural Details  
MIDWAY ON-SITE GRADING & DRAINAGE

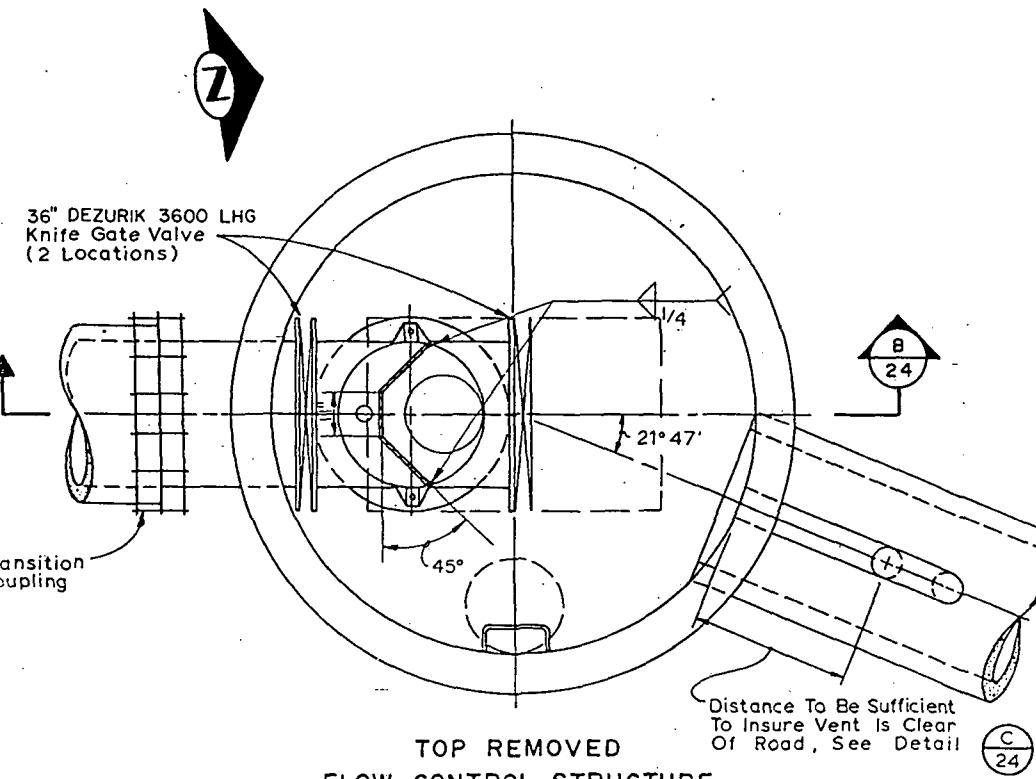
PC
R/W
CO
Vault Plan No.
774-20
SHEET 23 OF 23



## FLOW CONTROL STRUCTURE

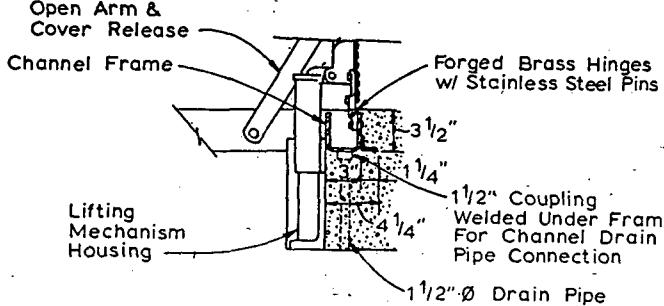
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1/2" = 1'-0"



TOP REMOVED  
FLOW CONTROL STRUCTURE

1/2" - 1" - 0"



**DETAIL**

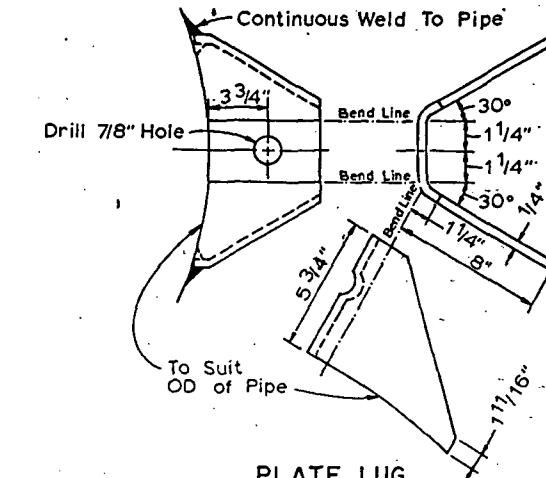
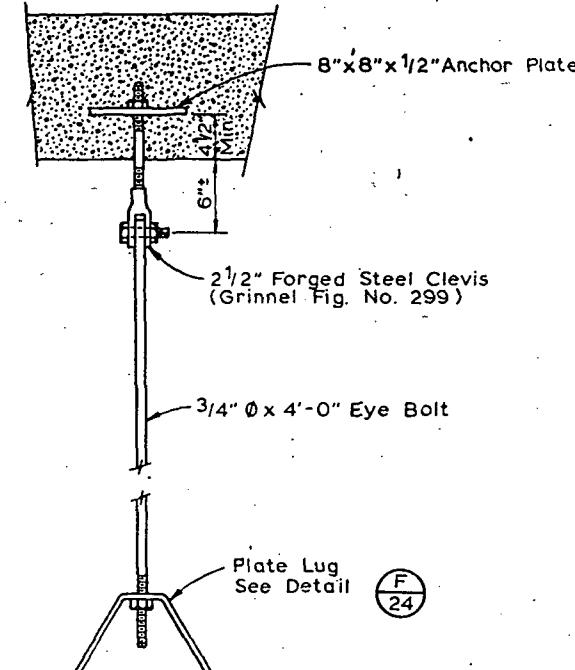
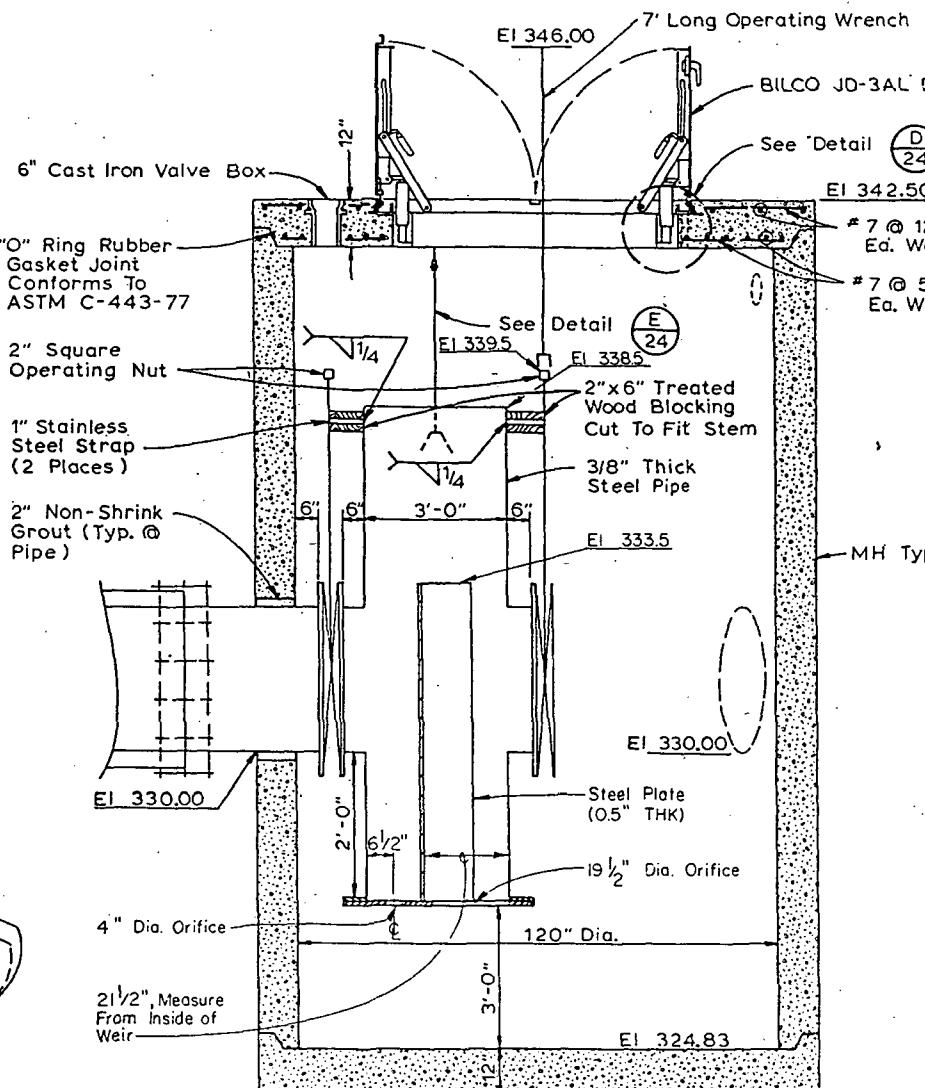


PLATE LUG  
DETAIL



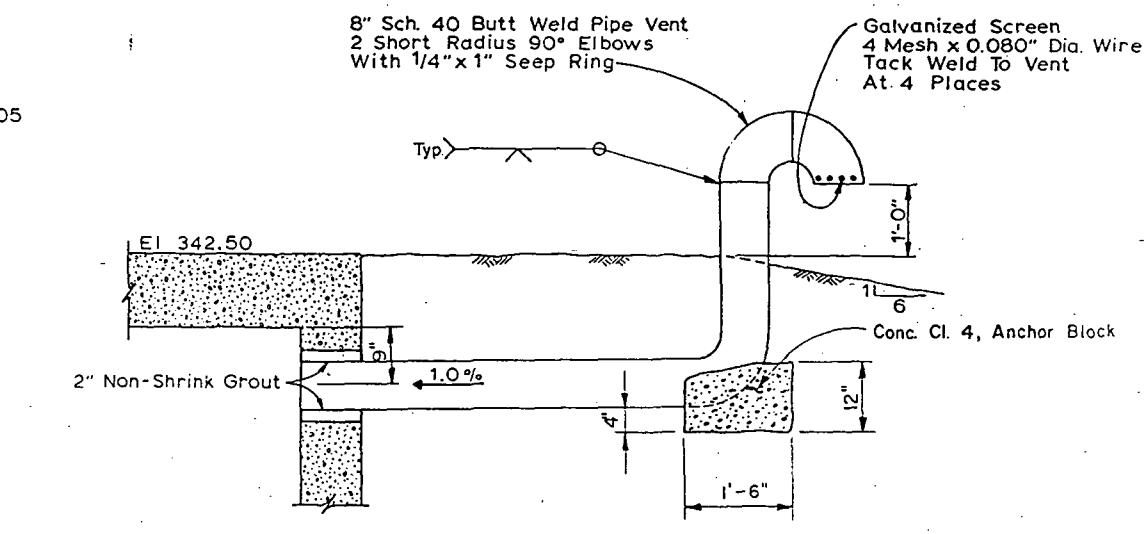
**CONNECTOR ROD  
DETAIL**



# FLOW CONTROL STRUCTURE

## MH 22 - SECTION E

$$1/2'' = 1^{\prime} - 0''$$



VENT  
DETAIL

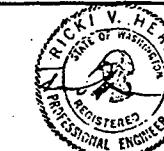
"AS BUILT" PER PLAN EXCEPT AS NOTED

**rametrix, Inc.**

P.O. Box 440  
100 Washington St #900  
1-800-5128

12000 Northup Way, Suite B  
Bellevue, Washington 98005  
435-2500

8570 Auto Center Way  
Bremerton, Washington 98312  
377-0014



APPROVED FOR ADVERTISING BY THE BOARD OF PUBLIC WORKS SEATTLE WASHINGTON	
TEST:	
EXECUTIVE SECRETARY	

	NAME OR INITIALS AND DATE	RE
S 87	DESIGNED _____	RE
	CHECKED _____	DE
HAIRMAN	DRAWN <i>Red</i> _____	TR
	CHECKED _____	RE
EECT. NO.	DESIGN REVIEW <i>RVH</i> _____	RE
All work done in accordance with the City of Seaford		

INITIALS AND DATE	
VIEWED:	
S.	CONST.
M.ANS. SVC.	PROJ. MGR. <i>KVZ</i>
RECEIVED <i>Diane H. Galt 8/18/87</i>	
REVISED AS BUILT. H.T. 11-30-90.	
The Standard Plans and Specifications in	

ORD  
FUND  
ECA

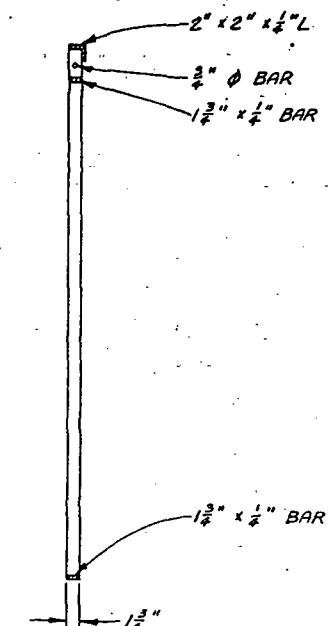
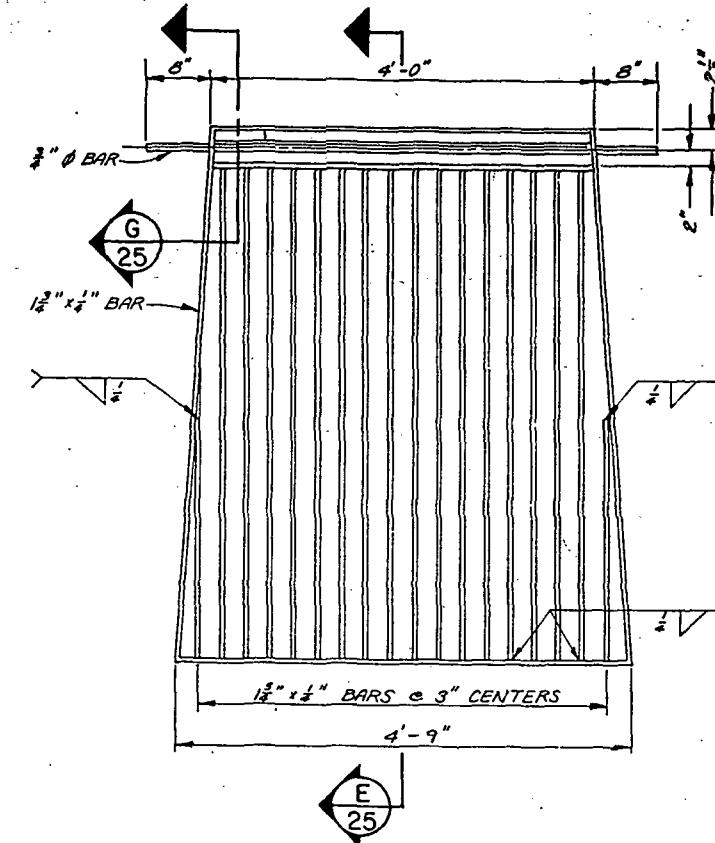
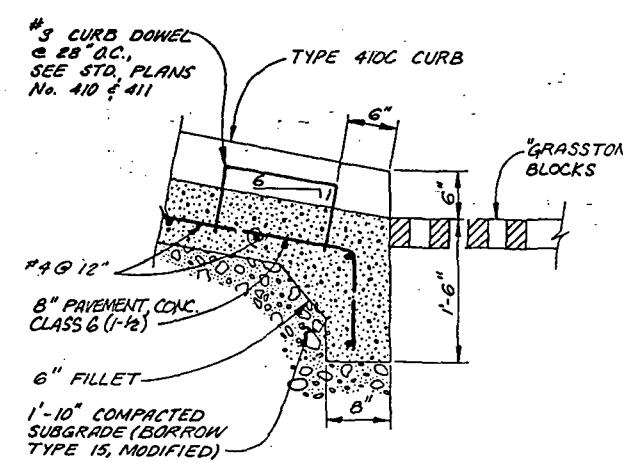
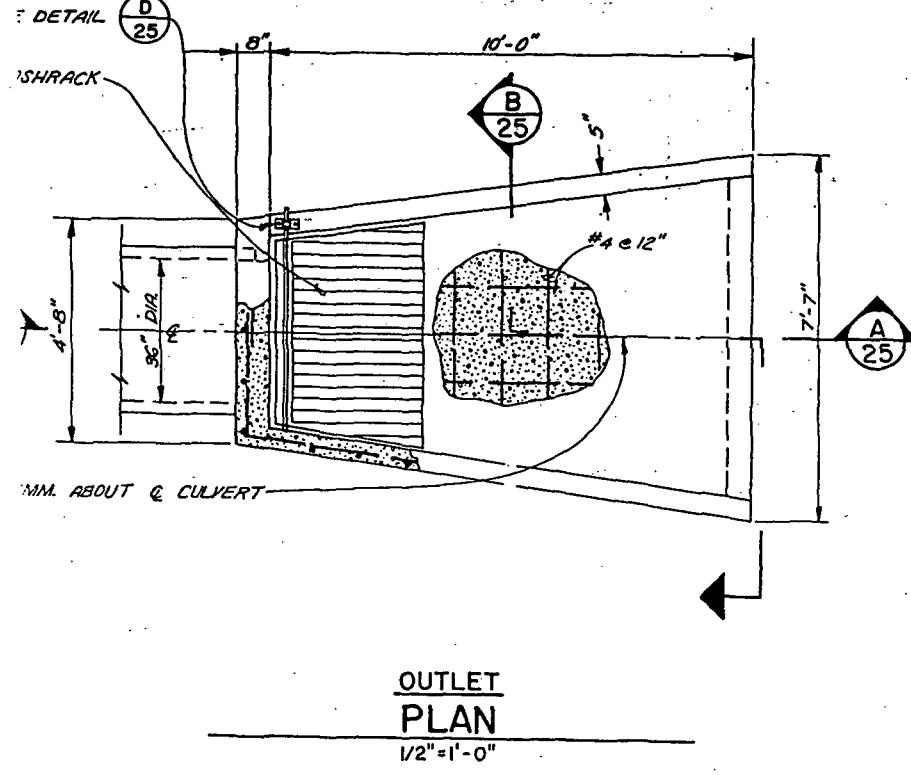
THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING

RING  
M

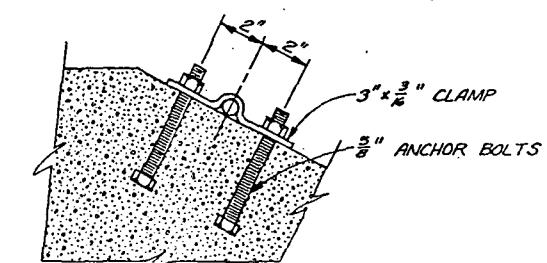
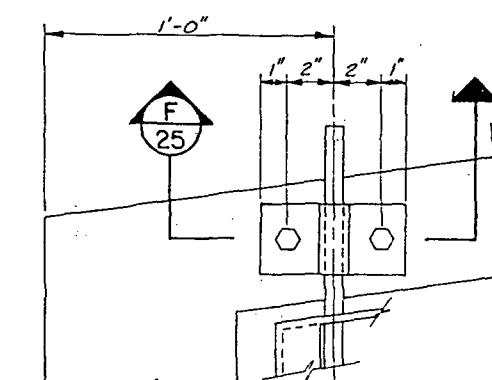
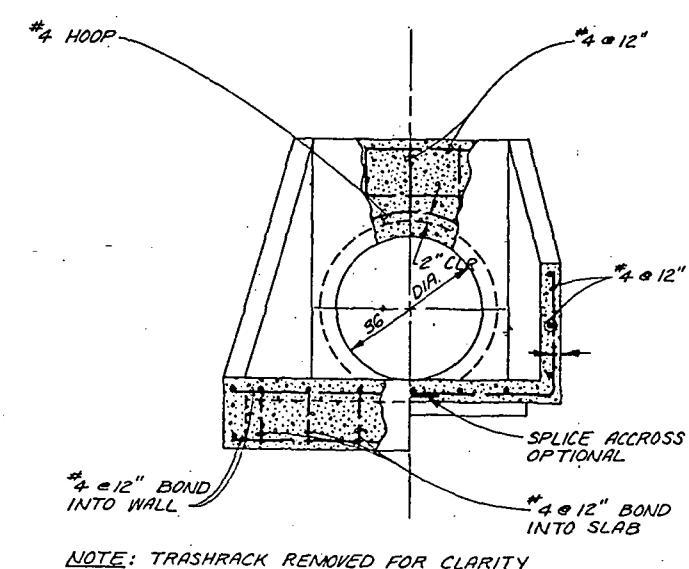
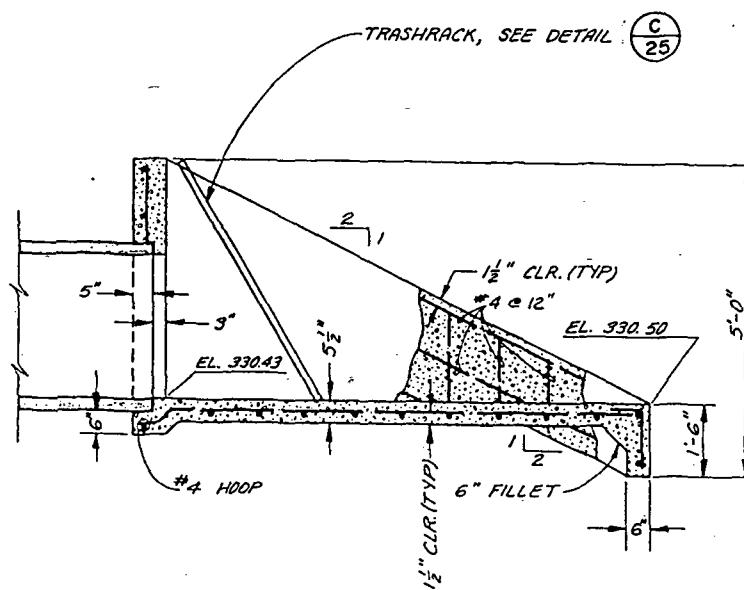
## Structural Details

MIDWAY ON-SITE GRADING & DRAINAGE

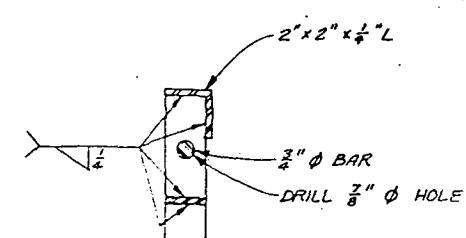
JOB NO.	PC .....
	R/W .....
	CO .....
<b>VAULT PLAN NO.</b>	
- 774-20	
SHEET 24 OF 23	



TRASHRACK SECTION  
1"=1'-0"  
E 25

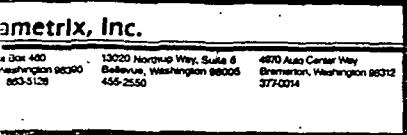


TRASHRACK SECTION  
3"=1'-0"  
F 25



TRASHRACK SECTION  
3"=1'-0"  
G 25

NOT SHOWN PER PLAN EXCEPT AS NOTED



APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON  
ATTEST:  
Rick V. Palmer, PE, S.E.  
EXECUTIVE SECRETARY  
PROJECT NO.: 874-190

NAME OR INITIALS AND DATE  
DESIGNED: 8/11/190  
CHECKED: 8/11/190  
DRAWN: 8/11/190  
TRANS. SVC.: 8/11/190  
RECEIVED: 8/11/190  
PROJ. MGR: 8/11/190  
CHECKED: 8/11/190  
REvised AS BUILT: 11-30-90  
DESIGN REVIEW: R.V.P.  
REVISED AS BUILT: 11-30-90

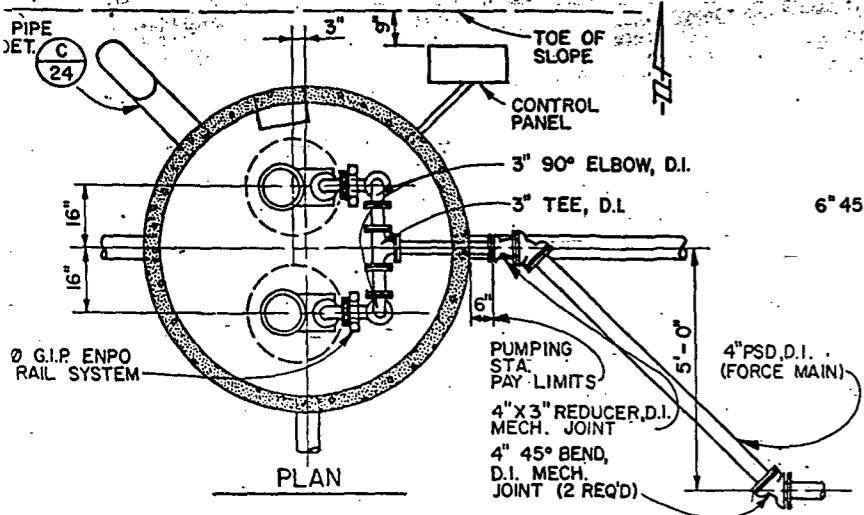
INITIALS AND DATE  
REVIEWED:  
DES.: CONST.  
TRANS. SVC.: PROJ. MGR.  
DRAWN: 8/11/190  
RECEIVED: 8/11/190  
REvised AS BUILT: 11-30-90  
CHECKED: 8/11/190  
DESIGN REVIEW: R.V.P.  
REVISED AS BUILT: 11-30-90

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. _____  
FUND: _____  
SCALE: H. V. _____  
INSPECTOR'S BOOK

Structural Details  
MIDWAY ON-SITE GRADING & DRAINAGE

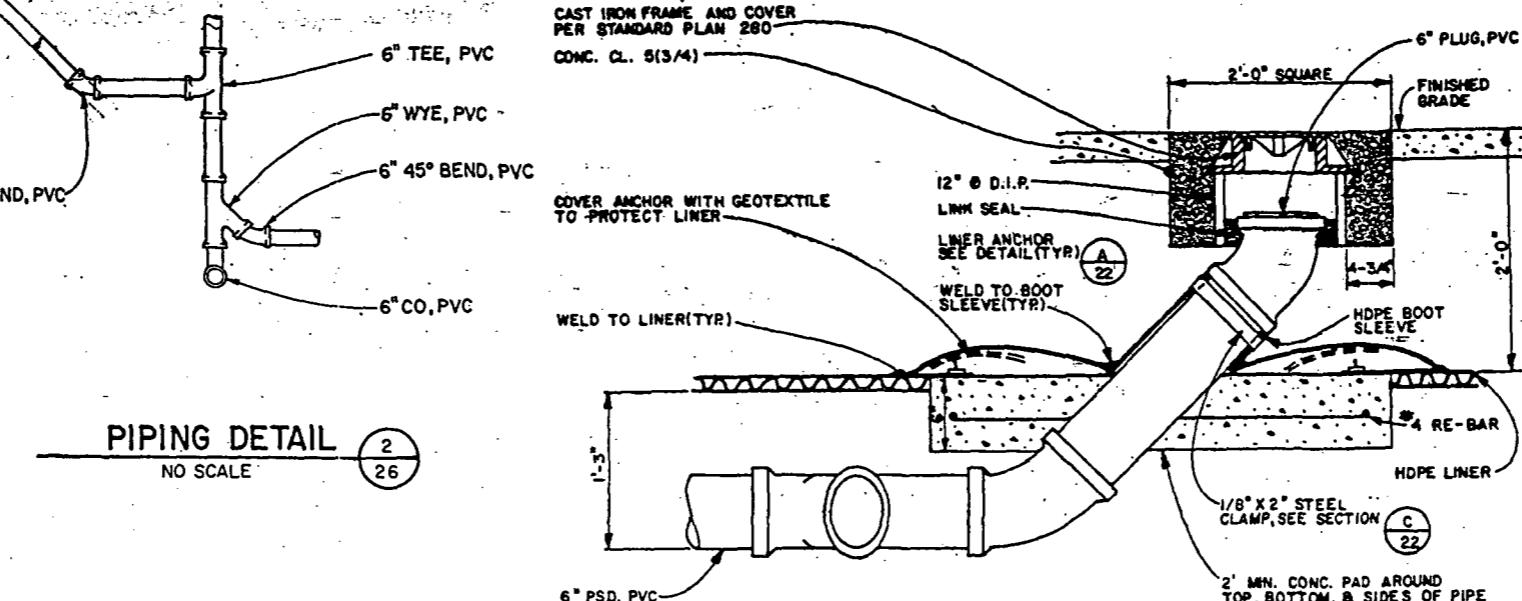
PC  
R/W  
CO  
JOB NO.  
VAULT PLAN NO.  
774-20  
SHEET 25 OF 25





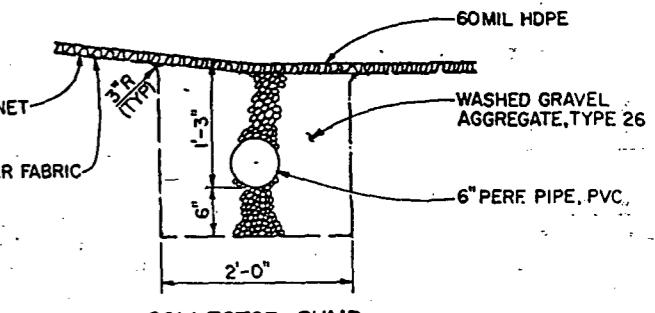
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NO SCALE



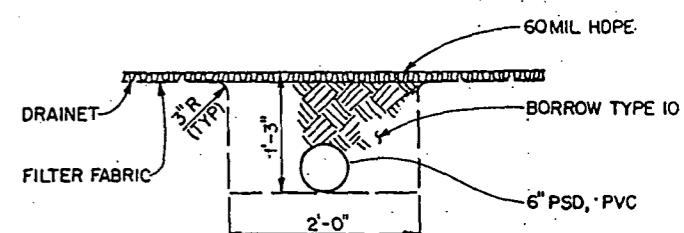
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TRENCH DETAIL

**NO SCALE**



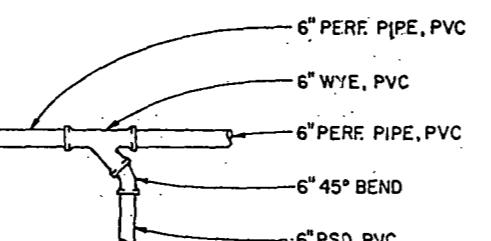
COLLECTOR SUMP  
**TRENCH DETAIL**

**NO SCALE**



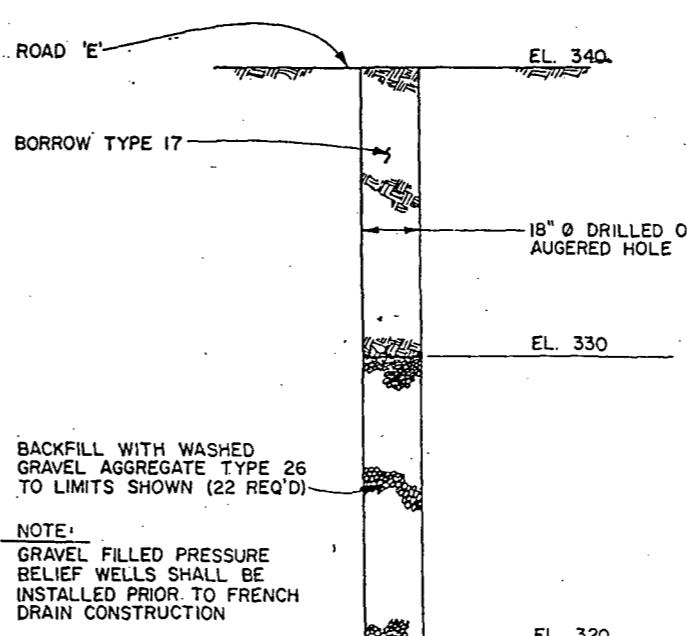
COLLECTOR PIPE  
TRENCH DETAIL

NO SCALE



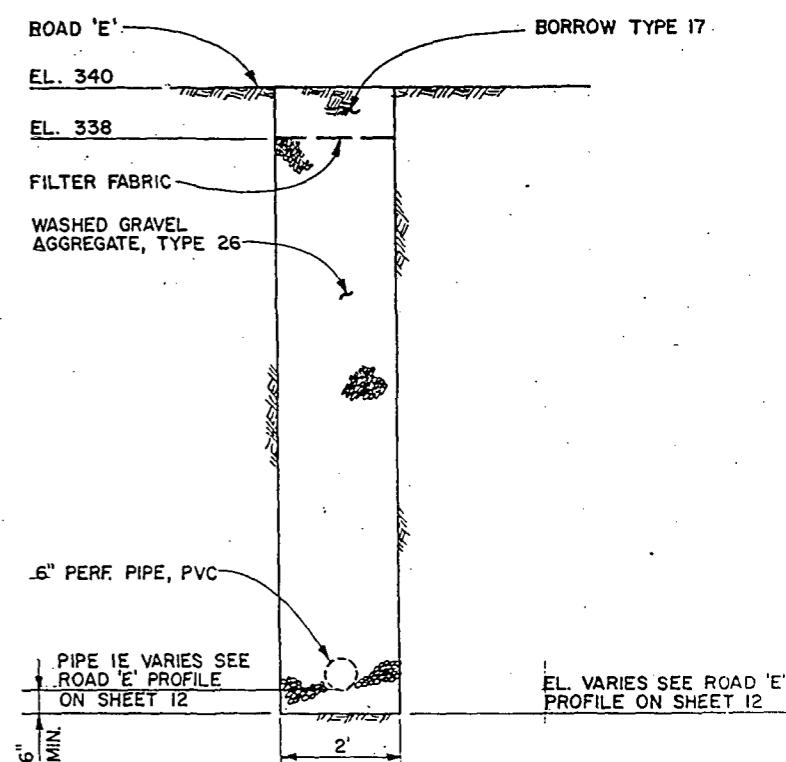
CLEANOUT  
DETAIL

NO SCALE



**GRAVEL FILLED PRESSURE  
TEST WELLS**

**DETAIL**



FRENCH DRAIN  
TRENCH DETAIL

NO SCALE



**metrix, Inc.**

400 4th Street, Suite 3  
Bremerton, Washington 98335  
425-2700

4870 Auto Center Way  
Bremerton, Washington 98337  
277-0414

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SEATTLE WASHINGTON

OR ADVERTISING  
OF PUBLIC WORKS  
5/26/1988  
*George Parker*  
*Parker* CHAIRMAN  
DIRECTOR PROJECT N.

NAME OR INITIALS AND  
DESIGNED *John*  
CHECKED _____  
DRAWN _____  
CHECKED *John*  
DESIGN REVIEW *PVH*  
All work done in accordance with

INITIALS AND  
REVIEWED: C  
DES. P  
TRANS. SVC. P  
RECEIVED D. AMER.  
REVISED AS BUILT H.

DATE  
ONST. 7-12-62  
POL. MGR. WILSON  
H. S. 17-11-61  
T. 11.30.80.  
Specifications in

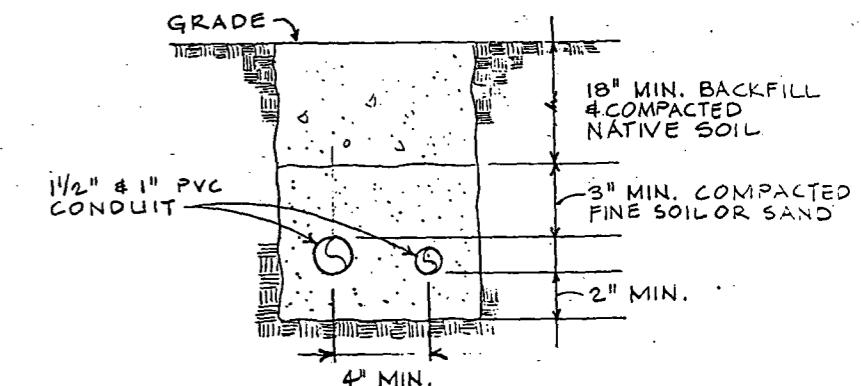
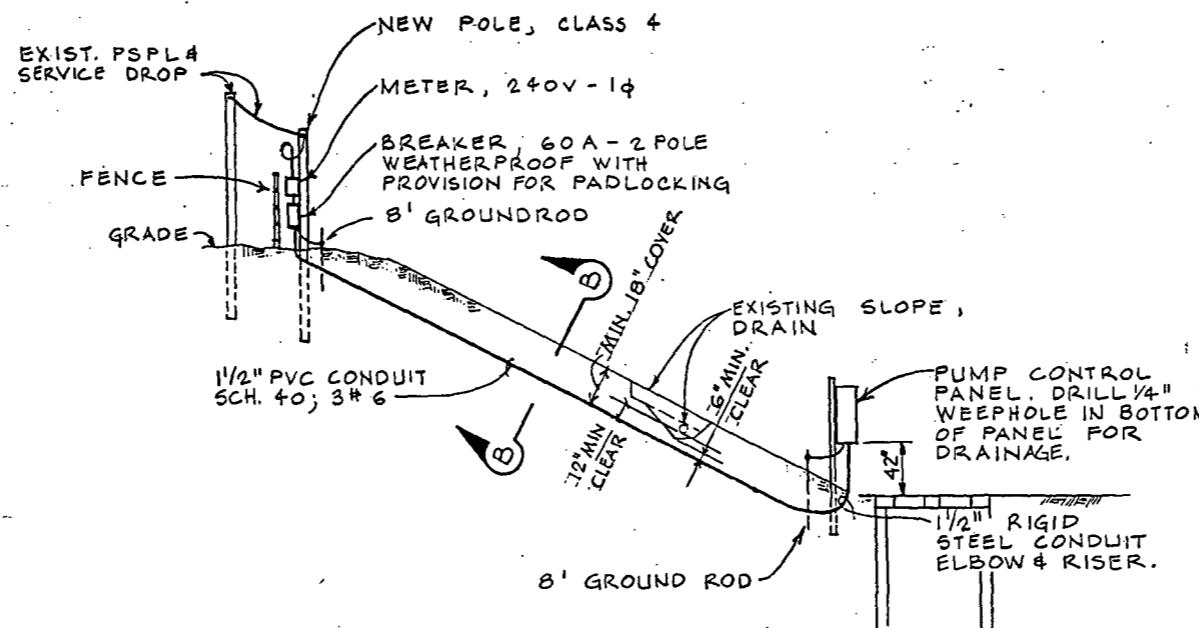
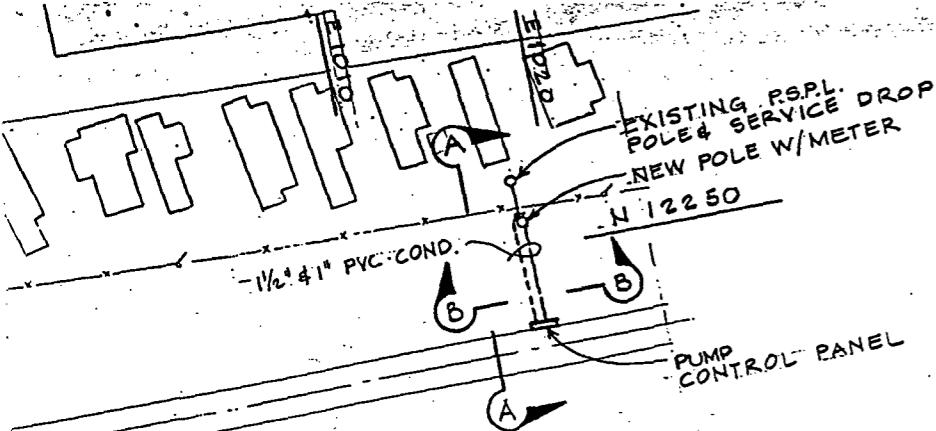
T  
DEPAR

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING

MIDW

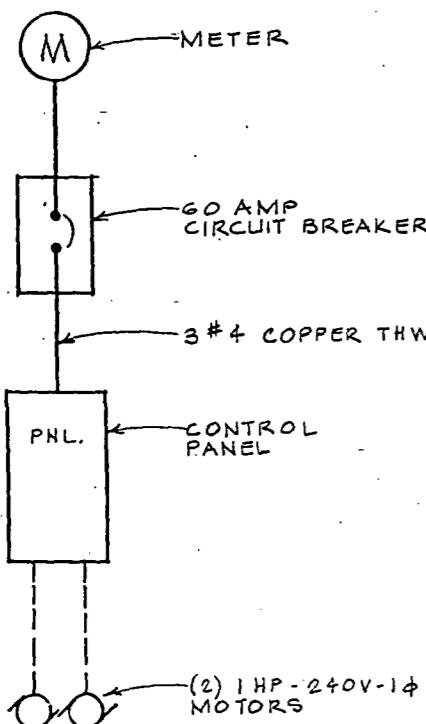
## Details

JOB NO.	PC .....
	R/W .....
	CO .....
VAULT PLAN NO	
<b>774-20</b>	
SHEET 27 OF 28	



SECTION B - B

SCALE: NONE



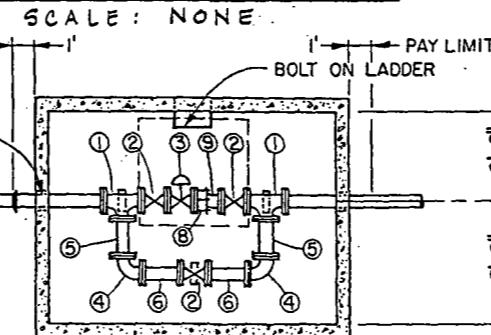
NOTES:  
ALARM EQUIPMENT BY OTHERS.  
THIS CONTRACT TO PROVIDE  
WIRING, CONDUIT (WHERE EXPOSED  
OR EMBEDDED) AND TERMINATIONS  
TO ALLOW CONNECTION OF  
EQUIPMENT BY OTHERS.

IN THE CONTROL PANEL, PROVIDE  
1-20A, 120V TERMINAL FOR CONNEC-  
TION OF RADIO ALARM SYSTEM POW-  
ER SUPPLY.

RISER DIAGRAM

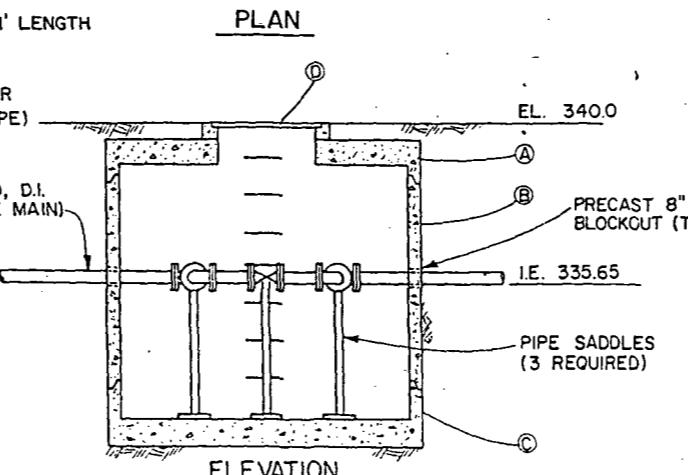
SCALE: NONE

SECTION A - A



- ① 4" TEE, D.I. (FLG)
- ② 4" GATE VALVE (FLG) WITH  
HANDWHEEL OPERATOR
- ③ 4" TURBINE WATER METER (FLG)
- ④ 4" 90° BEND, D.I. (FLG)
- ⑤ 4" D.I. PIPE SPOOL (FLG), 1' LENGTH
- ⑥ 4" D.I. PIPE SPOOL (FLG)
- ⑦ PIPE SADDLE (3 REQ'D)
- ⑧ 4" FLG. COUPLING ADAPTER
- ⑨ 4" D.I. PIPE SPOOL (FLG x PE)

- A UTILITY VAULT CO.  
TOP NO. 687-TL-332
- B UTILITY VAULT CO.  
VAULT NO. 687-ML
- C UTILITY VAULT CO.  
BASE NO. 687-SB
- D UTILITY VAULT NO.  
COVER NO. 44-332-P

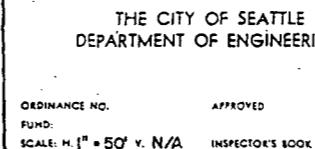
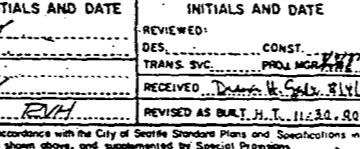
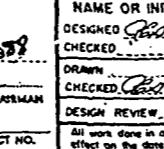
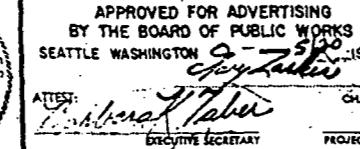
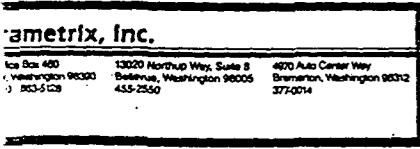


DETAIL

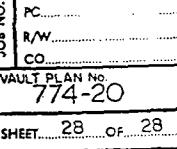
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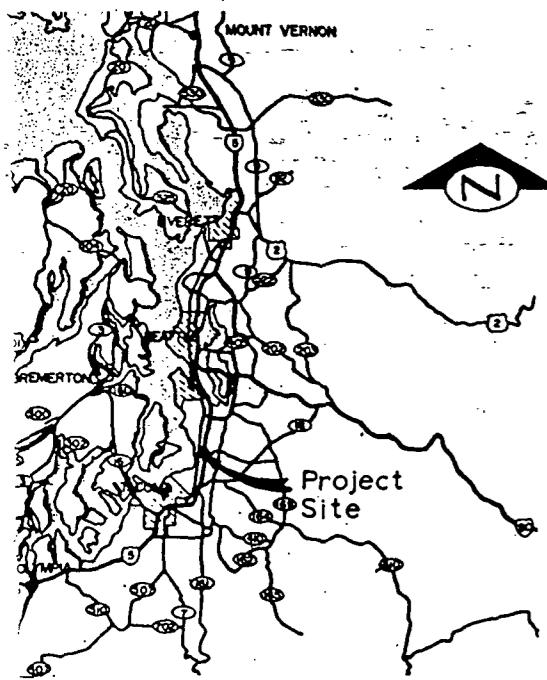
12

"AS BUILT" PER PLAN EXCEPT AS NOTED.



Electrical Plan and Misc.  
MIDWAY ON-SITE GRADING & DRAINAGE



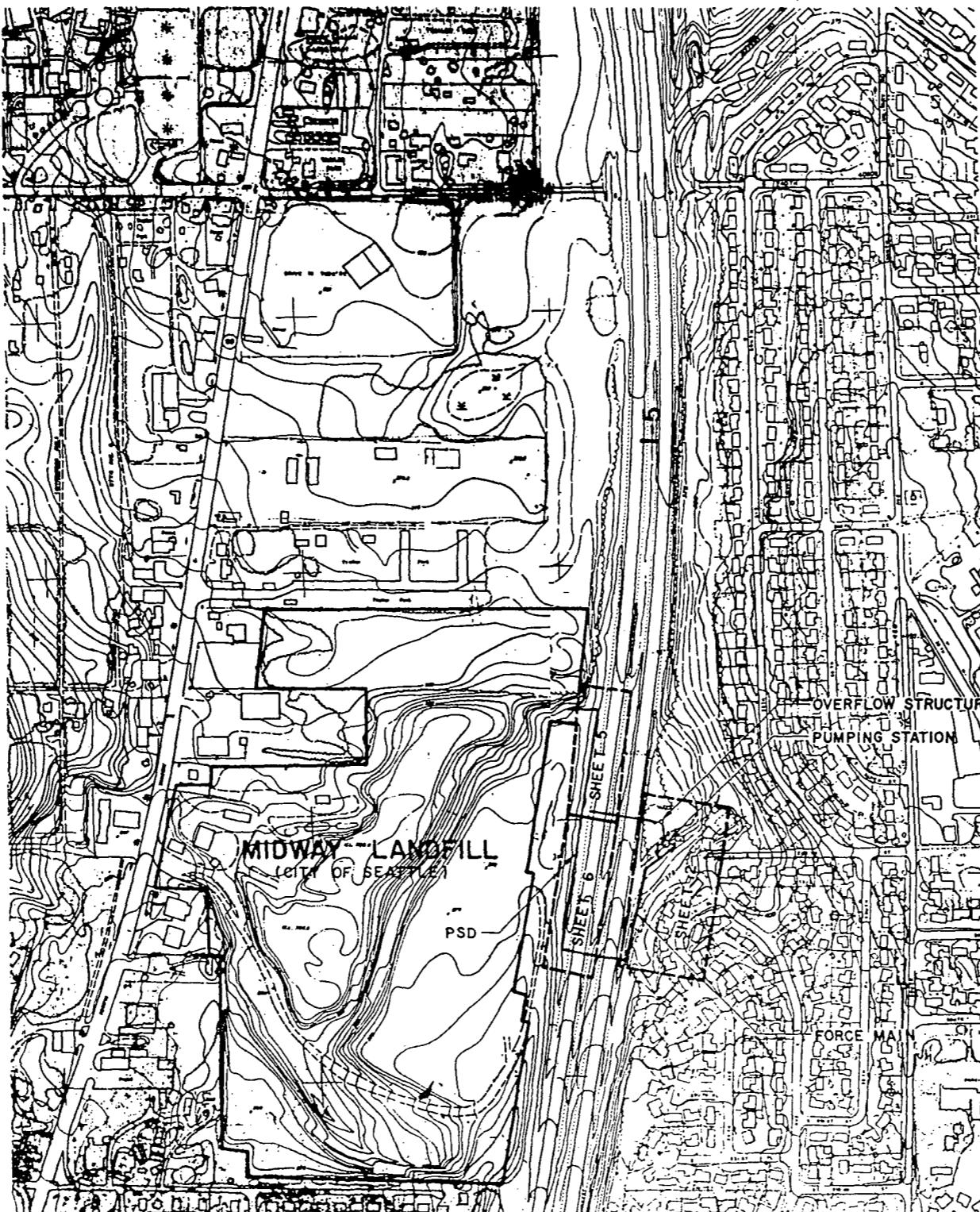


### VICINITY MAP

NO SCALE

### HEET INDEX

SHEET NO.	DESCRIPTION
1	LOCATION AND VICINITY MAPS, GENERAL NOTES
2	SITE PLAN
3	DETAILED SITE PLAN, CIVIL DETAILS
4	STORM DRAIN AND ROADWAY PROFILES
5	STORM DRAIN PLAN & PROFILE
6	STORM DRAIN PLAN & PROFILE
7	CIVIL DETAILS
8	STRUCTURAL PLANS AND SECTIONS
9	STRUCTURAL SECTIONS AND DETAILS
10	OVERFLOW STRUCTURE SECTION AND DETAILS
11	OVERFLOW STRUCTURE DETAILS
12	PIPE AND DUCT HANGER DETAILS
13	PUMPING STATION MECHANICAL PLANS
14	PUMPING STATION MECHANICAL SECTION
15	MECHANICAL DETAILS
16	SECTIONS AND DETAILS
17	CONTROL BUILDING ARCHITECTURAL - PLAN AND ELEVATIONS
18	CONTROL BUILDING ARCHITECTURAL - DETAILS
19	ELECTRICAL SITE PLAN
20	ONE LINE DIAGRAM AND PLANS
21	PANEL, LOGIC DIAGRAMS AND ELEVATION



### LOCATION MAP

NO SCALE



ACU 6-5-89 LIMA

"AS BUILT" PER PLAN EXCEPT AS NOTED

### Location and Vicinity Maps, General Notes

etrix, Inc.

101 11th Ave. 402  
Seattle, Washington 98101  
206-467-2550  
10 Auto Center Way  
Portland, Oregon 97218  
503-227-0014

ANNE SYMONDS &  
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CONSULTING ENGINEERS

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ATTEST:  
 Barbara K. Tabor  
EXECUTIVE SECRETARY

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED... A. SYMONDS 5/89	REVIEWED... DES... CONSTR...
CHECKED... R. HOBRES 5/89	TRANS. SVC... PROJ. MGR. E&C
DRAWN... K. SCOTT 5/89	RECEIVED... D. WEAVER 5/26/89
CHECKED... A. SYMONDS 5/89	REVISED AS BUILT H.T. 12-26-91
DESIGN REVIEW...	INSPECTOR'S BOOK NO. 45

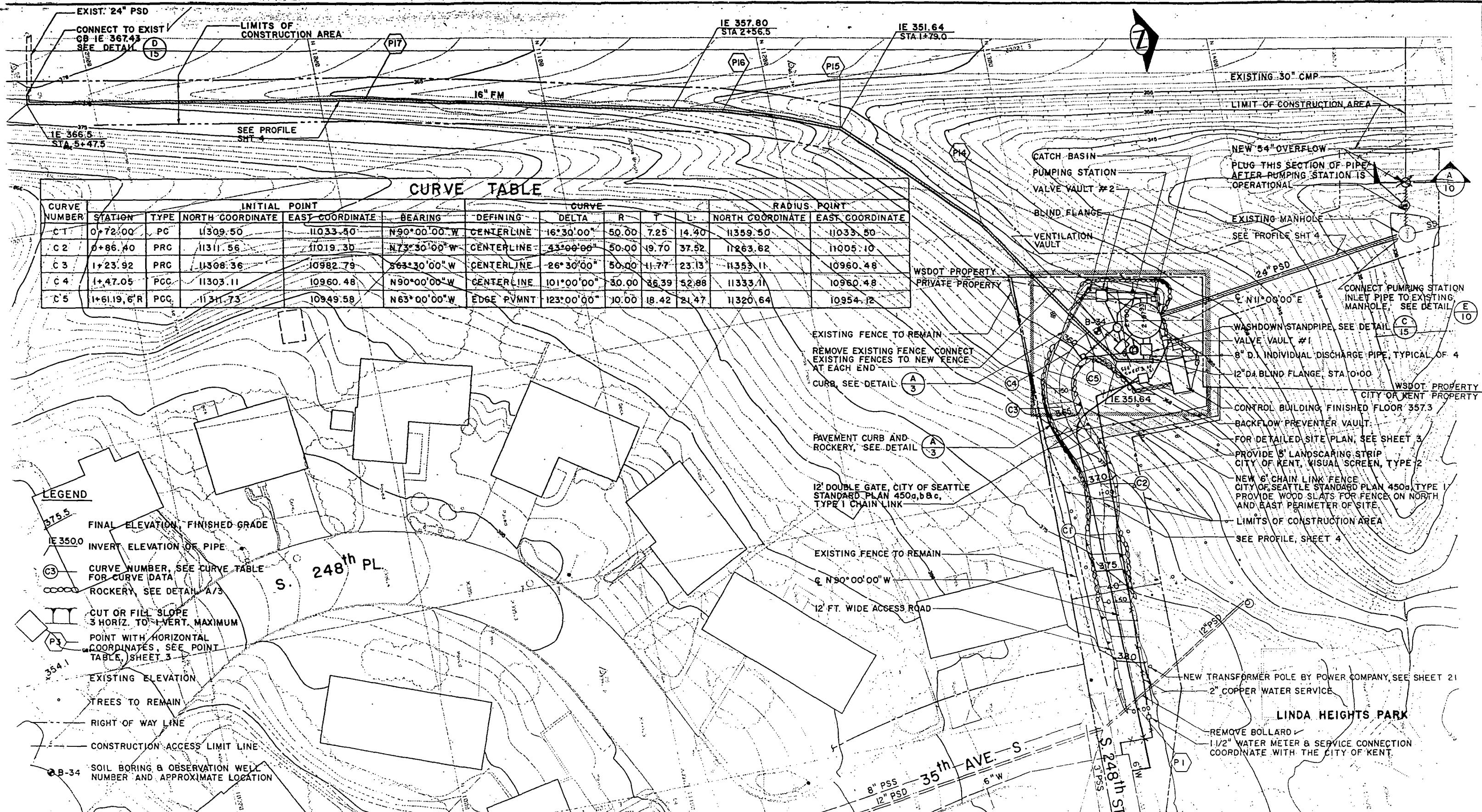


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ORDINANCE NO. 100-1989  
FUND...  
SCALE: AS NOTED  
INSPECTOR'S BOOK NO. 45

Midway Landfill Closure

East I-5 Pump Station

PC S1239A  
NW S1239B  
CO S1239C  
VAULT PLAN NO. 777-422  
SHEET 1 OF 21



Site Plan MAINTAIN FENCE EXCEPT AS NOTED

metrix, Inc.  
Post Office Box 460  
Sumner, Washington 98390  
206-436-9110 206-643-5126  
1970 Auto Center Way  
Benton, Washington 98312  
206-377-0014

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ATTEST: *Barbara L. Teller*  
EXECUTIVE SECRETARY

PROJECT NO.

NAME OR INITIALS AND DATE  
DESIGNED B. CRAWFORD 5/89  
CHECKED A.C. SYMONDS 5/89  
DRAWN G.A. CIAPPINI 5/89  
CHECKED B. CRAWFORD 5/89  
DESIGN REVIEW

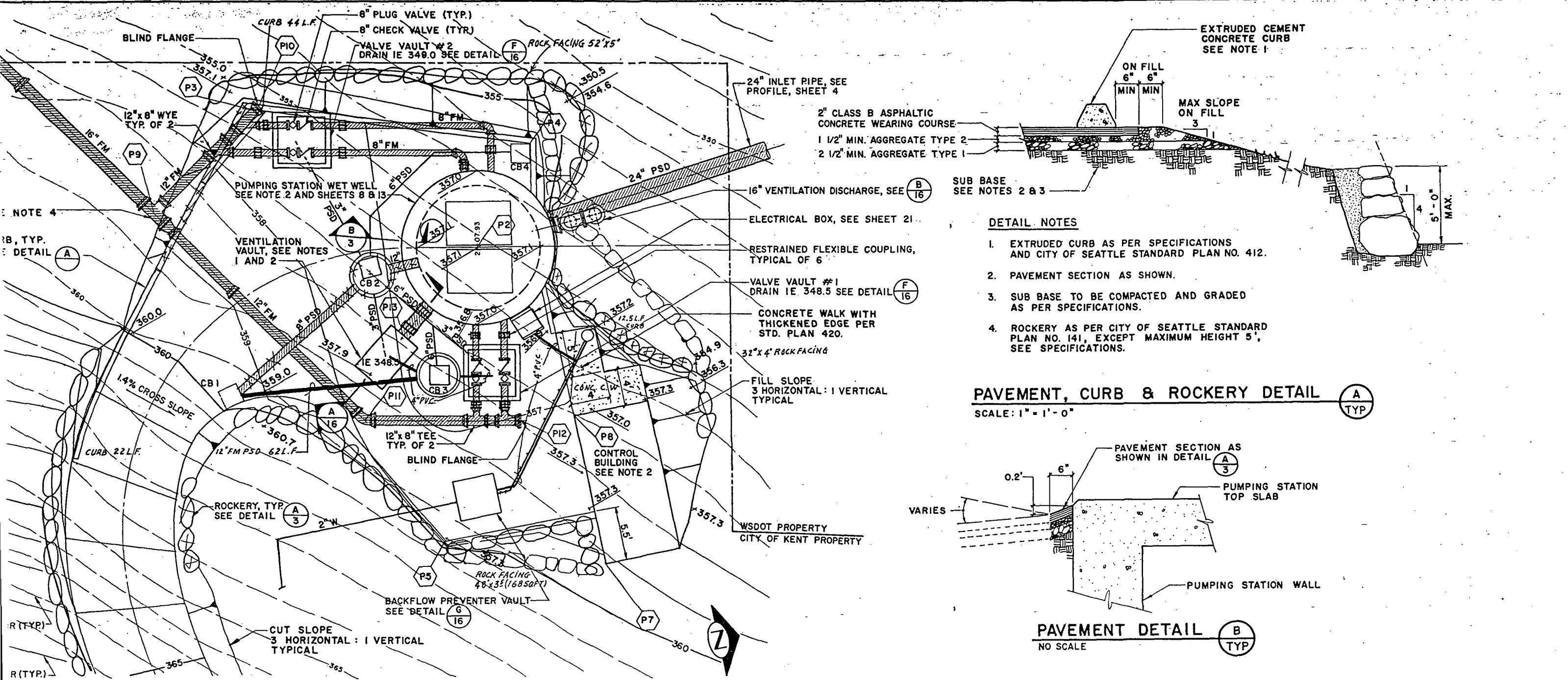
INITIALS AND DATE  
REVIEWED:  
DES: CONST:  
TRANS SVC: PROJ MGR/DO 5/89  
RECEIVED: DRAWN: H. C. 5/12/97  
REVISED AS BUILT H. I. 12. 06. 90

SYMONDS  
REGISTERED ENGINEER  
IN THE STATE OF WASHINGTON  
PC. S1239A  
R/W S1239B  
CO S1239C  
VAULT PLAN NO 777-422  
SHEET 2 OF 21

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO.:  
FUND:  
SCALE: 1"=20'-0"  
INSPECTOR'S BOOK NO.

Midway Landfill Closure

East I-5 Pump Station



### GENERAL NOTES

- TOP OF VENTILATION VAULT SHALL MATCH GRADE OF SURROUNDING PAVEMENT.
- STRUCTURES SHOWN ON THIS SHEET ARE DETAILED IN THE ARCHITECTURAL, ELECTRICAL, MECHANICAL AND STRUCTURAL SHEETS.
- FOR LEGEND, SEE SHEET 2.
- THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, BLIND FLANGES & WYES IN THE FORCE MAIN. SEE CITY OF SEATTLE STANDARD PLANS 330a & b, 331a & b, AND DETAIL SHEET 7 AS APPLICABLE.

**EXTRUDED CEMENT CONCRETE CURB SEE NOTE 1**

**ON FILL**  
6" 6"  
MIN MIN

**MAX SLOPE ON FILL**  
3

**24" INLET PIPE, SEE PROFILE, SHEET 4**

**2" CLASS B ASPHALTIC CONCRETE WEARING COURSE**

**1 1/2" MIN. AGGREGATE TYPE 2**

**2 1/2" MIN. AGGREGATE TYPE 1**

**16" VENTILATION DISCHARGE, SEE B 16**

**ELECTRICAL BOX, SEE SHEET 21**

**RESTRAINED FLEXIBLE COUPLING, TYPICAL OF 6**

**VALVE VAULT #1 DRAIN IE 348.5 SEE DETAIL F 16**

**CONCRETE WALK WITH THICKENED EDGE PER STD. PLAN 420.**

**32" X 4" ROCKFACING**

**FILL SLOPE 3 HORIZONTAL : 1 VERTICAL TYPICAL**

**WSDOT PROPERTY CITY OF KENT PROPERTY**

**NOTE 4**

**R, TYP. SEE DETAIL A**

**1.4% CROSS SLOPE**

**CURB 22LF.**

**ROCKERY, TYP. SEE DETAIL A 3**

**BLIND FLANGE**

**ROCK FACING 48" X 35" (16850SF)**

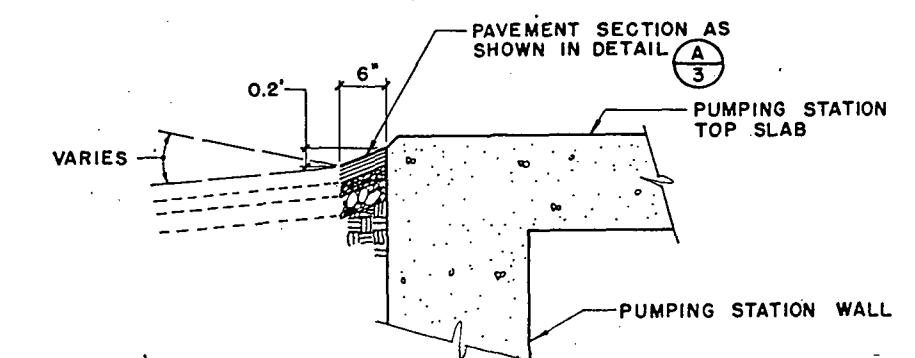
**BACKFLOW PREVENTER VAULT SEE DETAIL G 16**

**CUT SLOPE 3 HORIZONTAL : 1 VERTICAL TYPICAL**

**Z**

### PAVEMENT, CURB & ROCKERY DETAIL

SCALE: 1" = 1'-0"



### PAVEMENT DETAIL B TYP

NO SCALE

STRUCTURE NUMBER	TYPE	RIM ELEV.	I.E.	PIPE DIAMETER
1	252	359.4		8" NORTH
2	252	356.7		6" WEST
3	200B W/264 FRAME & GRATE	349.5 347.72 (OUT) 353.06 (IN) 348.71 (IN) 348.20 (IN) 348.36 (IN) 354.50 (IN)	356.8	12" NORTH 6" WEST 4 1/2" WEST 6" N.E. 4 1/2" EAST 8" S.E.
4	252	356.6		6" SOUTH

Detailed Site Plan, Civil Details

metrix, Inc.

Post Office Box 460  
Summer, Washington 98390  
206-838-9810 206-443-5128

4370 Auto Center Way  
Bremerton, Washington 98312  
206-377-0014

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ST. L. 11309.50

ST. L. 11309.50

ST. L. 11309.50

DESIGNED: B. CRAWFORD 5/89  
CHECKED: A. SYMONDS 5/89  
DRAWN: G. A. CIAPPINI 5/89  
CHECKED: A. SYMONDS 5/89  
DESIGN REVIEW: R. J. TAYLOR 5/89

REVIEWED: D. J. GALE 5/22/89  
TRANS. SVC. PROJ. MGR. REC'D. DESIGNER: D. J. GALE 5/22/89  
REVISED AS BUILT: 11.1.12.0.6.90

ALL WORK DONE IN ACCORDANCE WITH THE CITY OF SEATTLE STANDARD PLANS AND SPECIFICATIONS IN EFFECT ON THE DATE SHOWN ABOVE, AND SUPPLEMENTED BY SPEC. PROVISIONS

PROJECT NO. 503-256-5444

INITIALS AND DATE  
REVIEWED:  
DES. CONST.  
TRANS. SVC. PROJ. MGR. REC'D. DESIGNER: D. J. GALE 5/22/89  
REVISED AS BUILT: 11.1.12.0.6.90

REVIEWED: D. J. GALE 5/22/89  
TRANS. SVC. PROJ. MGR. REC'D. DESIGNER: D. J. GALE 5/22/89  
REVISED AS BUILT: 11.1.12.0.6.90

ALL WORK DONE IN ACCORDANCE WITH THE CITY OF SEATTLE STANDARD PLANS AND SPECIFICATIONS IN EFFECT ON THE DATE SHOWN ABOVE, AND SUPPLEMENTED BY SPEC. PROVISIONS

PROJECT NO. 503-256-5444

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. APPROVED  
FUND: INSPECTOR'S BOOK

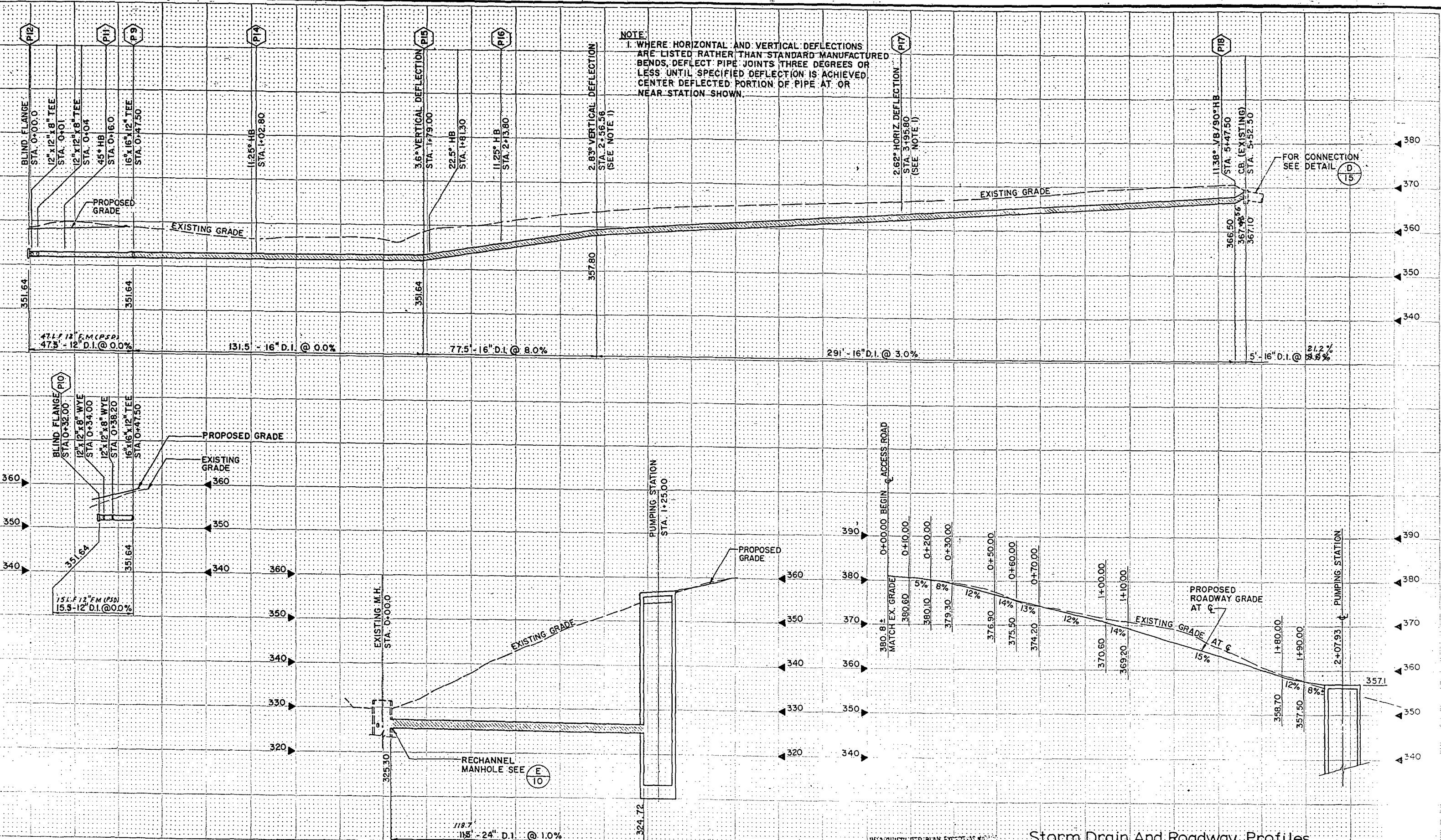
Midway Landfill Closure

East I-5 Pump Station

PC S1239A  
R/W S1239B  
CO S1239C

Vault Plan No. 777-422

Sheet 3 of 21



## Storm Drain And Roadway Profiles

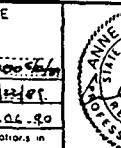
**tetrix, Inc.**  
 Post Office Box 460  
 Sumner, Washington 98390  
 206-838-9810 206-833-5129  
 1970 Auto Center Way  
 Tumwater, Washington 98312  
 206-377-0014  
 13020 Northup Way  
 Bellevue, Washington 98005  
 206-455-2530  
 6130 NE 78th Court, Suite C-7  
 Portland, Oregon 97218  
 503-258-5444

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ASSOCIATES, INC.  
CONSULTING ENGINEERS**

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SEATTLE WASHINGTON RPG

NAME OR INIT.	
DESIGNED R. FILI	
CHECKED A. SYM	
DRAWN ... B. SKA	
CHECKED, B. CRA	
DESIGN REVIEW ...	
All work done in accordance with contract	

ALS AND DATE	INITIALS AND DA
SI 5/89	REVIEWED:
ONOS 5/89	DES. CONST.
TVTD 5/89	TRANS SVC. PROJ. M.
WFORO 5/89	RECEIVED <i>John G. L.</i>
REVISED AS BUILT. H.I.L.	



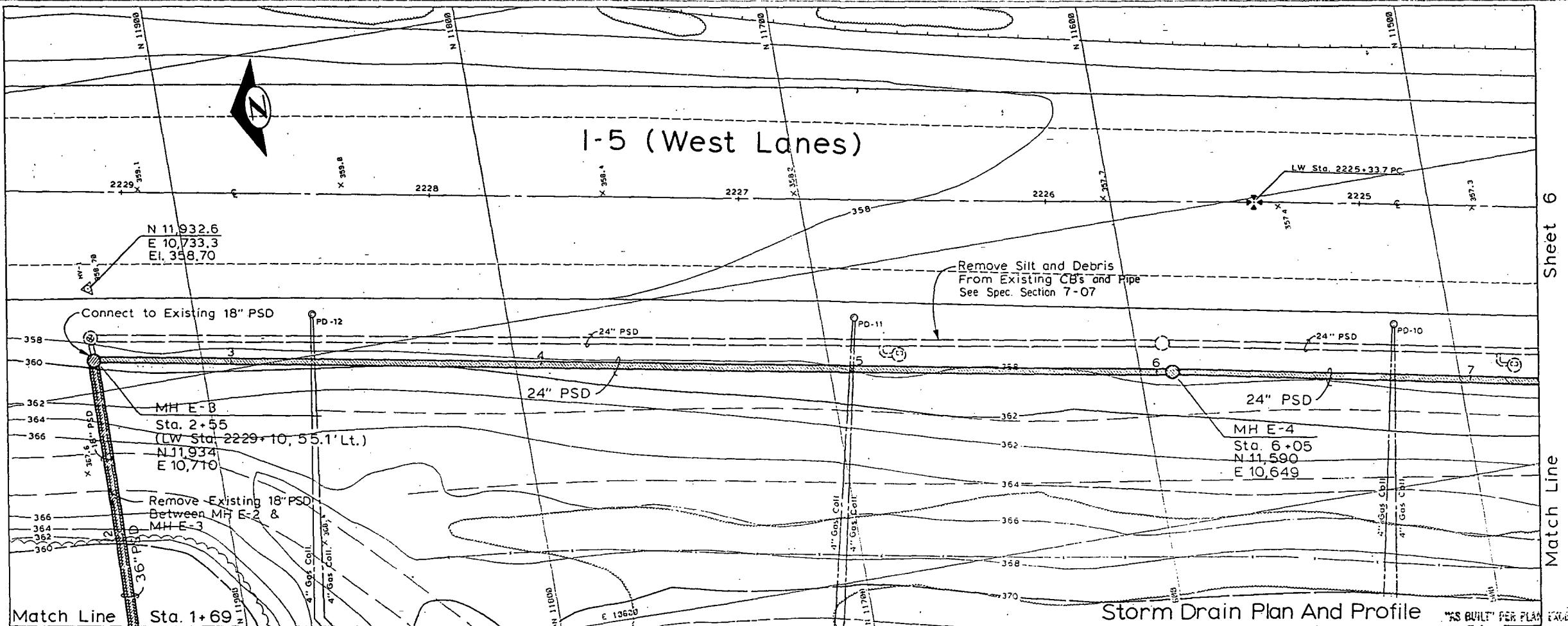
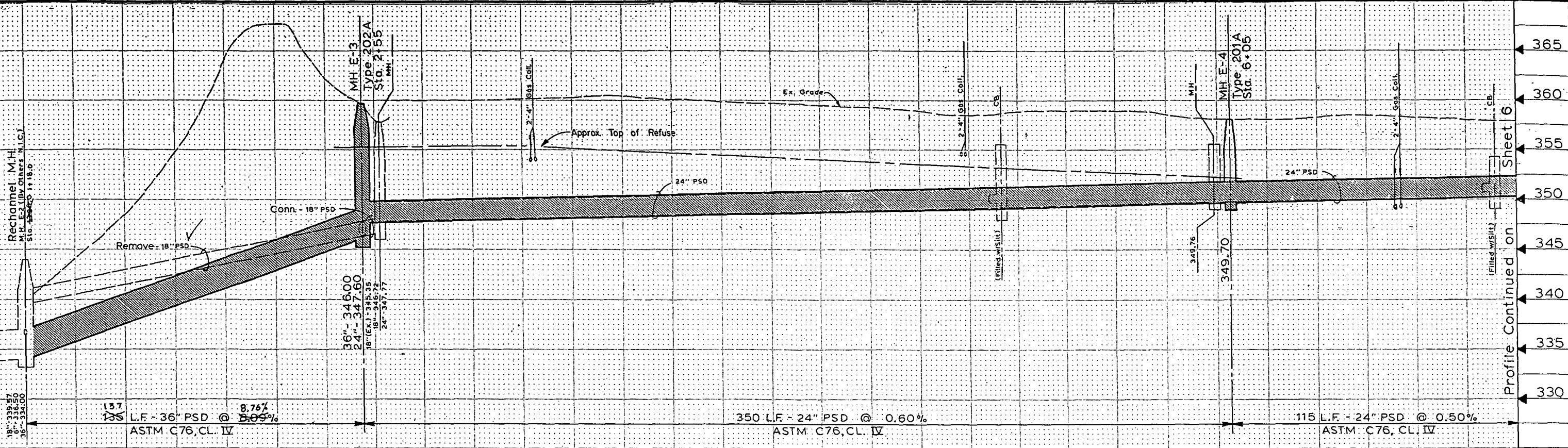
THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ELISENE V. AVERY P.E., DIRECTOR OF ENGINEERING

ORDINANCE NO. 10-100 APPROVED

FUND: C-100-100

## Midway Landfill Closure East I-5 Pump Station

PC S1239A  
R/W S1239B  
CO S1239C



## Storm Drain Plan And Profile

"AS BUILT" PER PLAN EXCEPT AS NOTED

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*R. J. Groom*  
R. J. Groom  
Chairman

NAME OR INITIALS AND DATE

DESIGNED GWD 5/88

CHECKED -----

DRAWN GWD REG 5/88

**CHECKED.**.....

## DESIGN REVIEW

**INITIALS AND DATE**

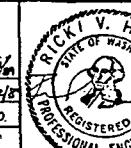
**REVIEWED:**

DES. .... CONST. ....

TRANS. SVC. .... PROJ. MGR. CAO.

RECEIVED Diana H. 12/26

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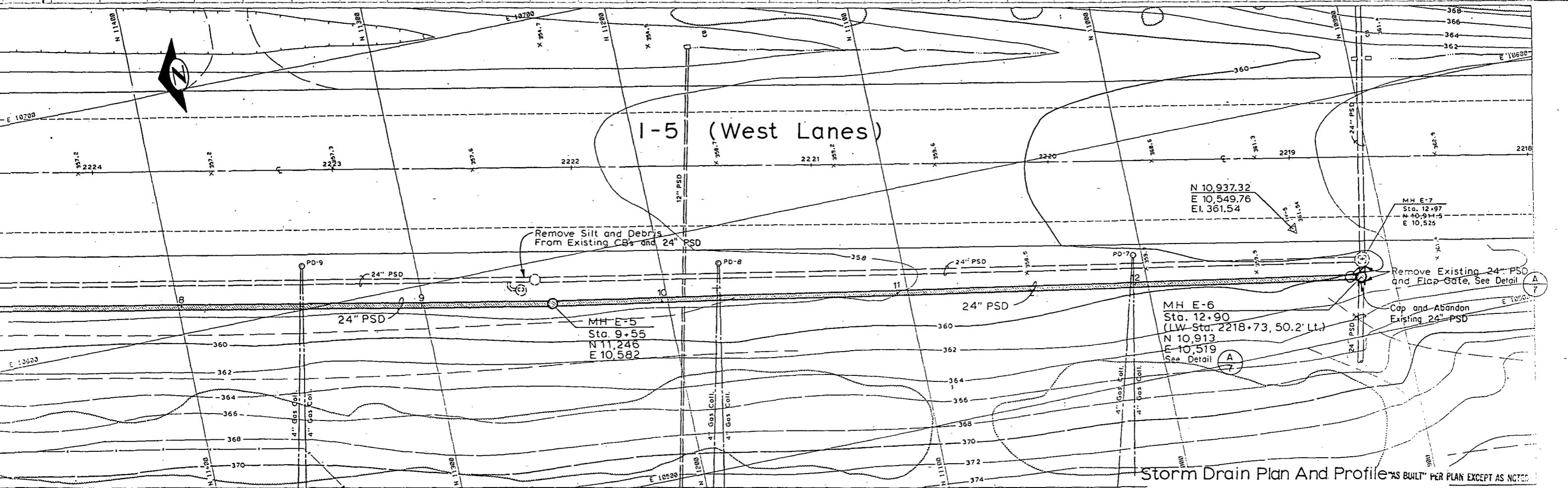
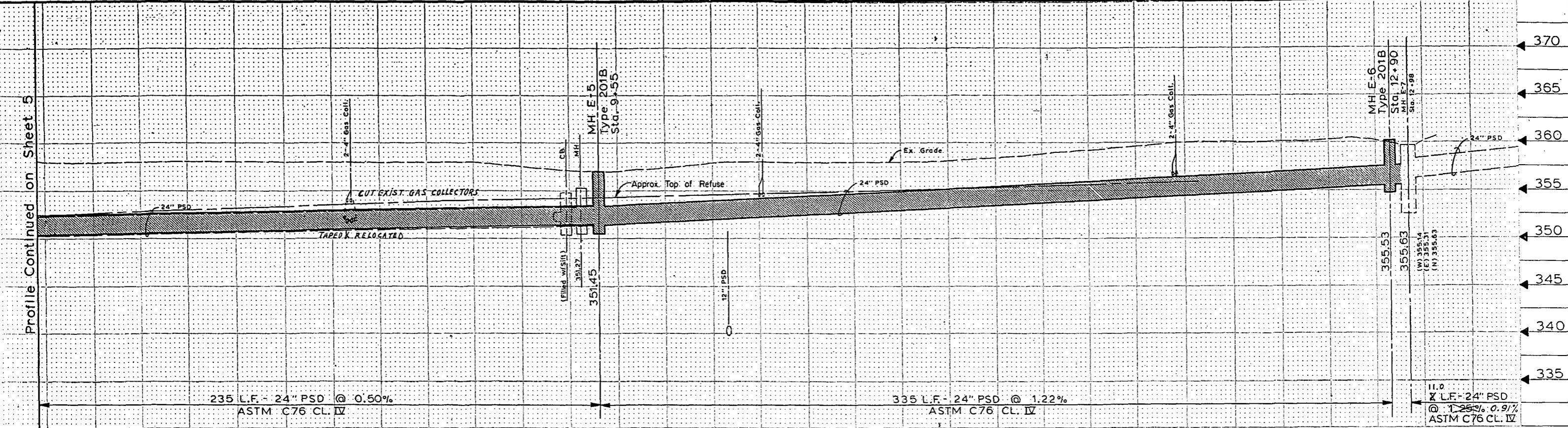
THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEER

ORDINANCE NO. APPROVED  
SUNDAY

Midway Landfill Closure  
East I-5 Pump Station

PC S1239A  
R/W S1239B  
CO S1239C  
  
VAULT PLAN No  
777-422  
  
SHEET 5 C 21

Profile Continued on Sheet 5



Storm Drain Plan And Profile "AS BUILT" PER PLAN EXCEPT AS NOTED

netrix, Inc.  
Post Office Box 460  
Sumner, Washington 98390  
206-358-8811 206-563-3550  
1970 Auto Center Way  
Bremerton, Washington 98312  
206-377-0014

13020 Northup Way  
Bellevue, Washington 98005  
206-453-3550

6130 NE 78th Court, Suite C-7  
Portland, Oregon 97218  
503-255-5444

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SEATTLE WASHINGTON 4/25/99  
R.P. [Signature]  
ATTEST:  
Barbara K. [Signature]  
EXECUTIVE SECRETARY  
PROJECT NO.

NAME OR INITIALS AND DATE  
DESIGNED G.W.D. 9/88  
CHECKED  
DRAWN G.W.D./REG. 5/18/99  
RECEIVED PROJ. MGR/CAD 5/18/99  
CHECKED  
DESIGN REVIEW  
REVISED AS BUILT H.T. 12-06-99

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions

INITIALS AND DATE  
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TRANS. SVC. PROJ. MGR/CAD 5/18/99  
RECEIVED PROJ. MGR/CAD 5/18/99  
CHECKED  
DESIGN REVIEW  
REVISED AS BUILT H.T. 12-06-99

RICK V. HERMES  
STATE OF WASHINGTON  
REGISTERED  
PROFESSIONAL ENGINEER

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. APPROVED  
FUND. INSPECTOR'S BOOK NO.  
SCALE: H. 1" = 20' V. 1" = 5'  
INSPECTOR'S BOOK NO.

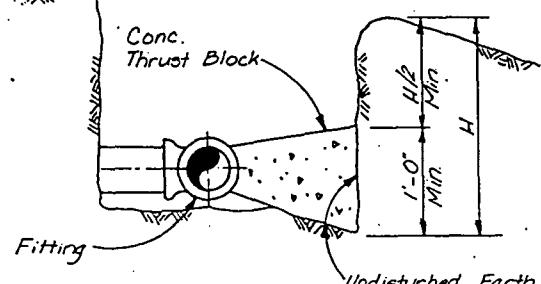
Midway Landfill Closure  
East I-5 Pump Station

PC S1239-1  
R/W S1239-1  
CO S1239-1  
VAULT PLAN NO 777-422  
SHEET 6 OF 21

- KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES.
- CONCRETE THRUST BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH.
- REQUIRED BEARING AREAS AT FITTINGS SHALL BE AS INDICATED BELOW WITH A MINIMUM AREA OF 1 SQ. FT.
- BEARING AREAS ARE BASED ON TEST PRESSURE OF 350 PSIG AND AN ALLOWABLE SOIL BEARING STRESS OF 750 LBS./SQ.FT.
- BEARING AREAS AND SPECIAL BLOCK DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD.
- THRUST BLOCKS SHALL BE CONSTRUCTED WITH CONCRETE.
- THRUST BLOCKS FOR PIPES LESS THAN 16" DIAMETER, SHALL CONFORM TO CITY OF SEATTLE STANDARD PLAN 330 AND 331.

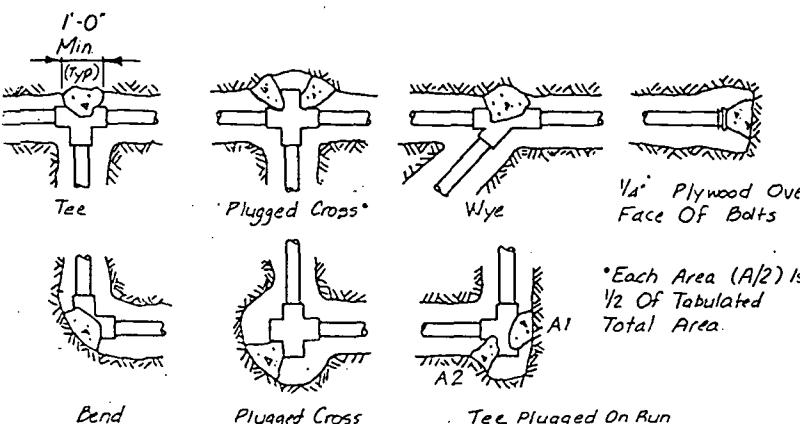
BEARING AREA OF THRUST BLOCK IN SQ. FT.  
FOR HORIZONTAL FITTINGS

FITTING SIZE	TEE, WYE, PLUG OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED ON RUN	BEND ANGLE			A1	A2
				45°	22½°	11¼°		
16"	93.8	132.6	93.8	132.6	71.6	36.6	16.3	



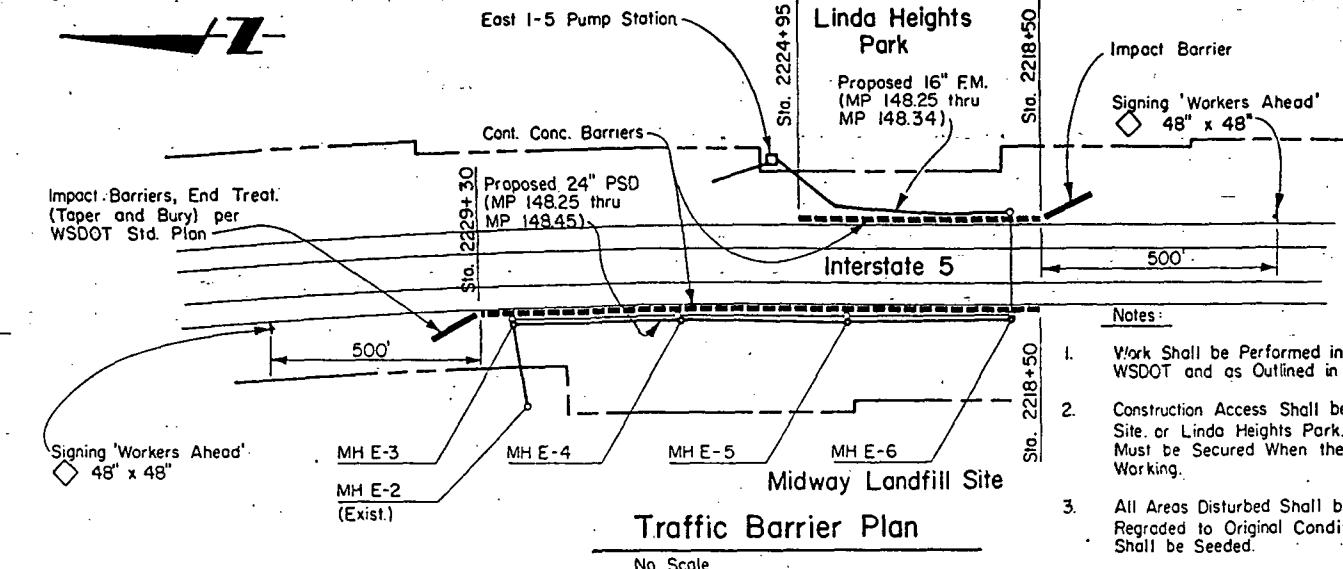
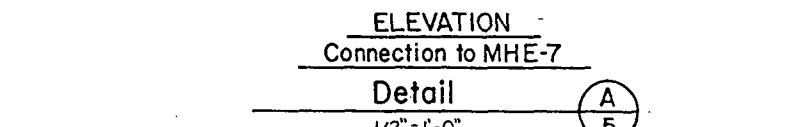
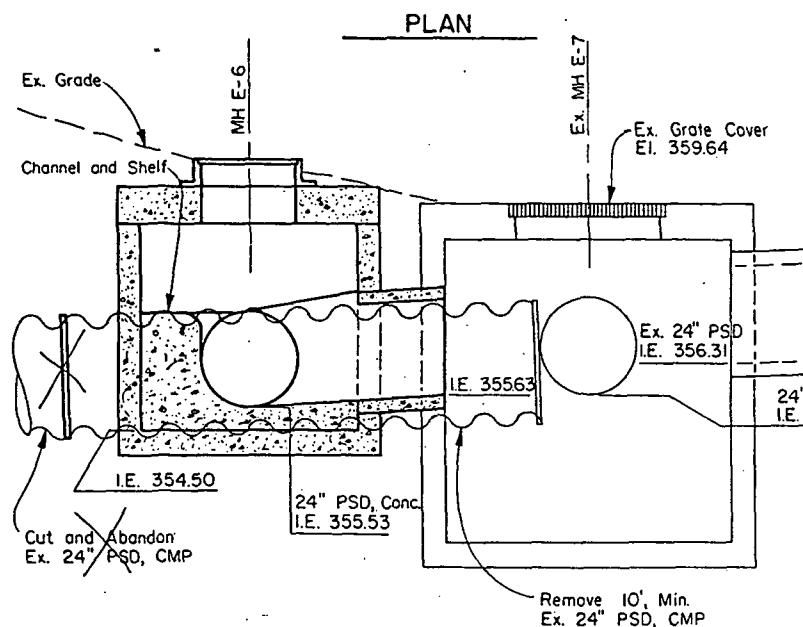
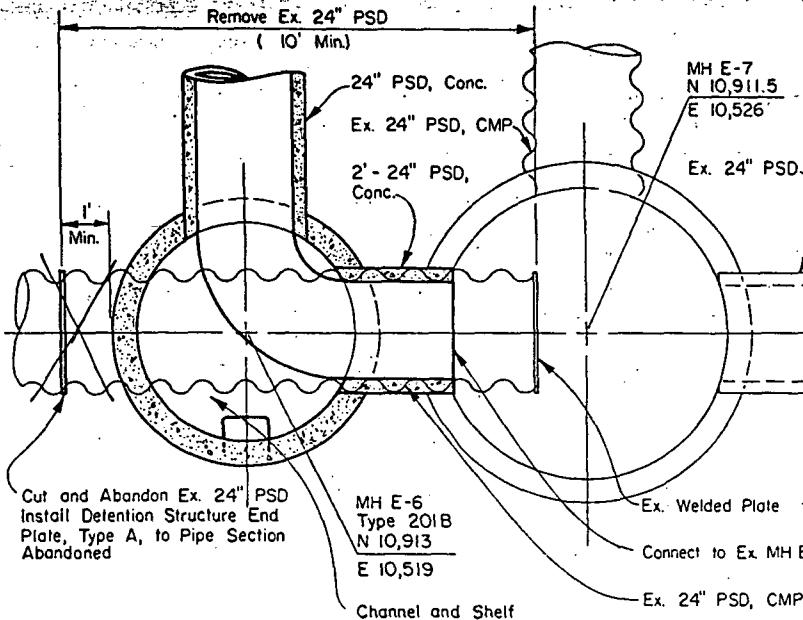
### HORIZONTAL FITTING SECTION

NO SCALE

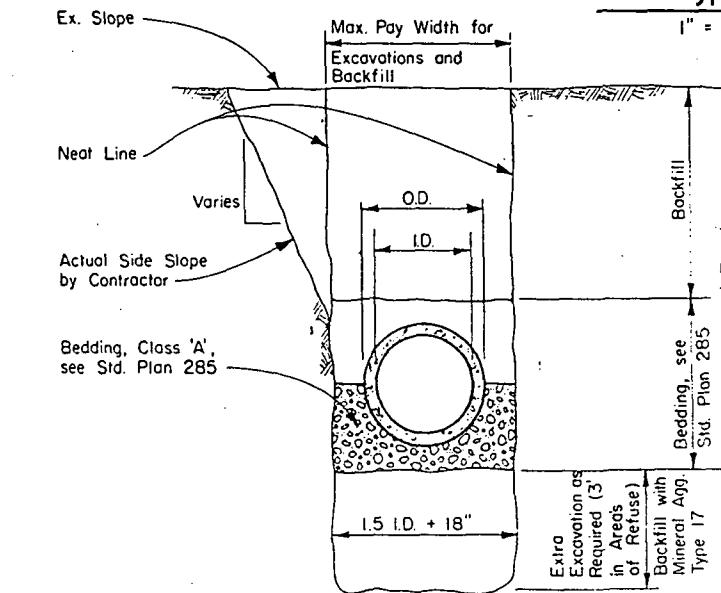
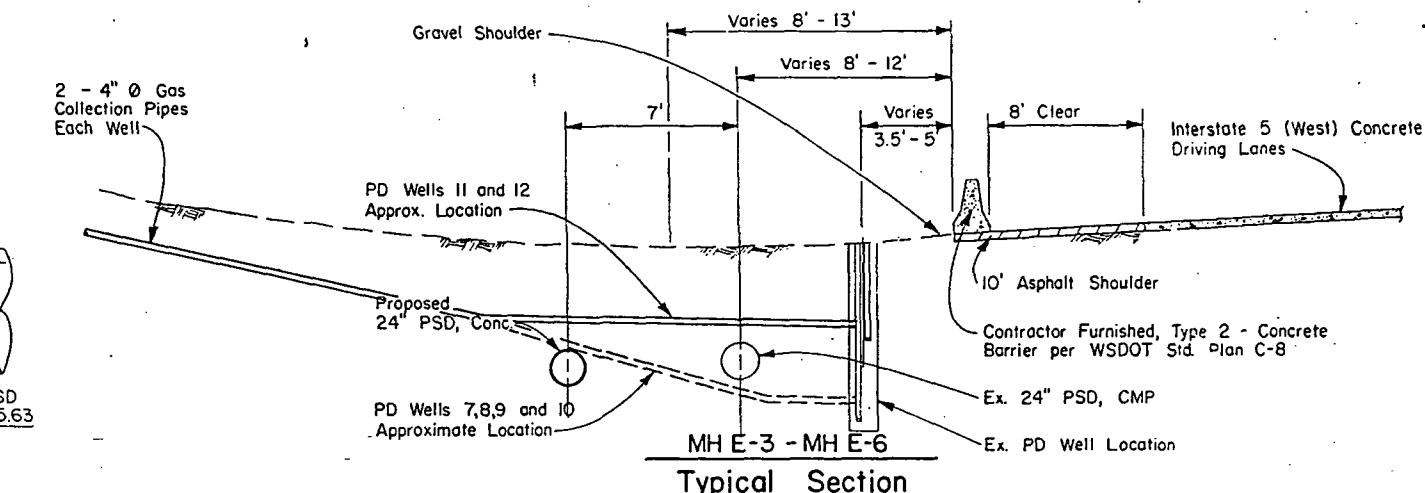


### THRUST BLOCK NOTES AND DETAILS

NO SCALE

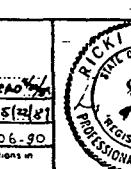


- Notes:
- Work Shall be Performed in Accordance with WSDOT and as Outlined in Appendix.
  - Construction Access Shall be Through the Landfill Site or Linda Heights Park. All Fenced Areas Must be Secured When the Contractor is Not Working.
  - All Areas Disturbed Shall be Restored and Rere graded to Original Condition and Dirt Areas Shall be Seeded.
  - Barrier Limits Shown in WSDOT I-5 Stationing.



### Typical Trench Section (Sewer)

Ref. Std. Spec. Sec. 7-17  
No Scale



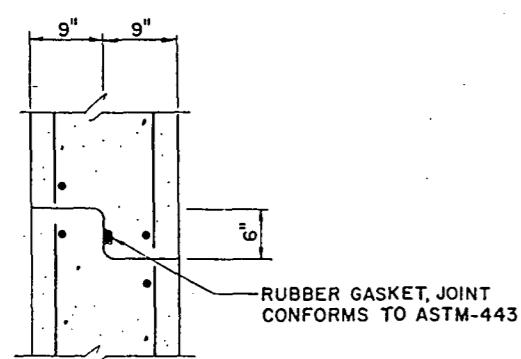
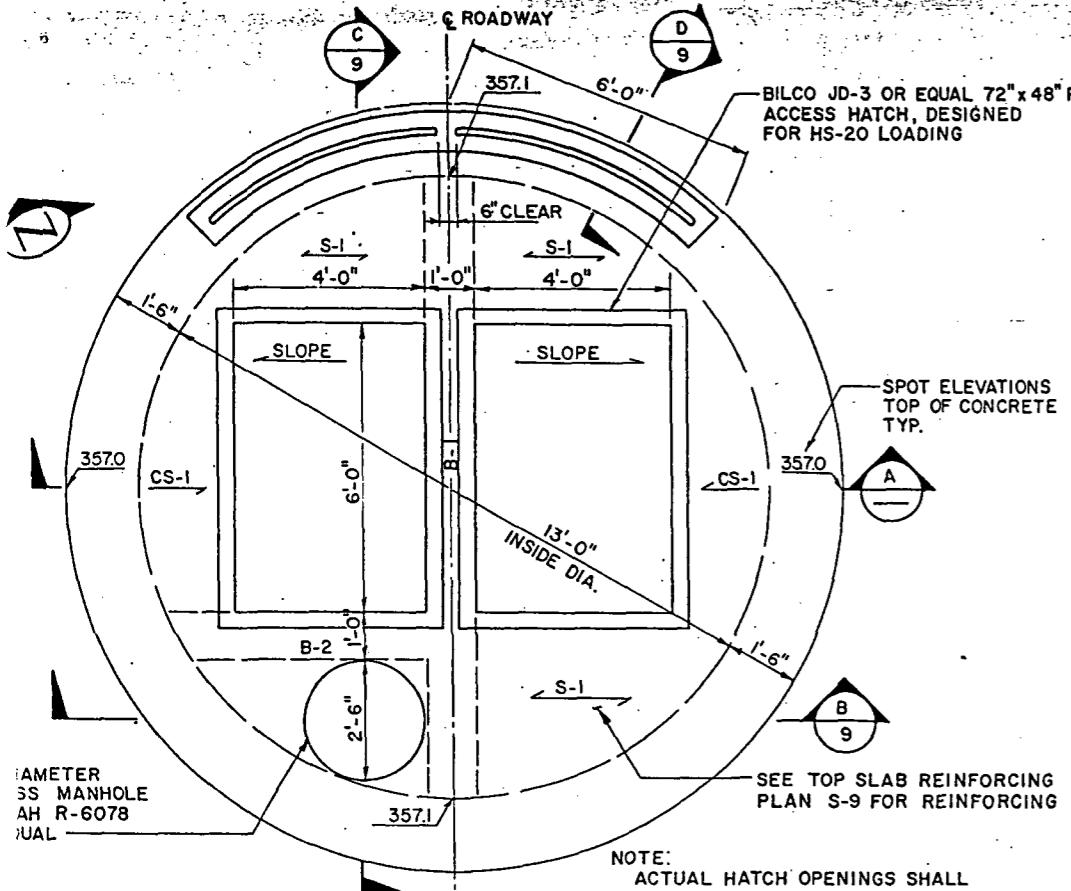
THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. _____  
FUND: _____  
SCALE: AS NOTED  
APPROVED  
INSPECTOR'S BOOK

Civil Details "AS BUILT" PER PLAN EXCEPT AS NOTED

Midway Landfill Closure

East I-5 Pump Station

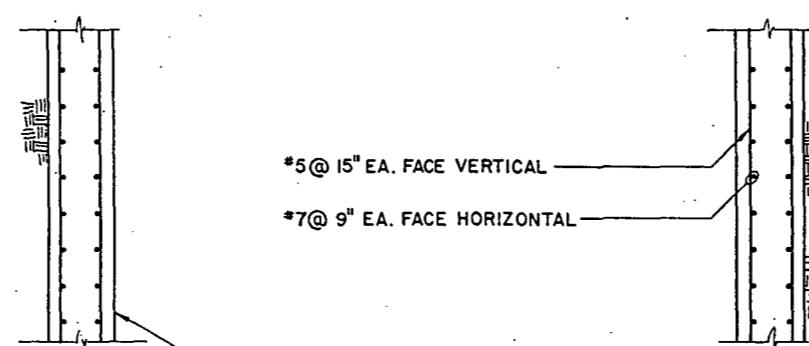
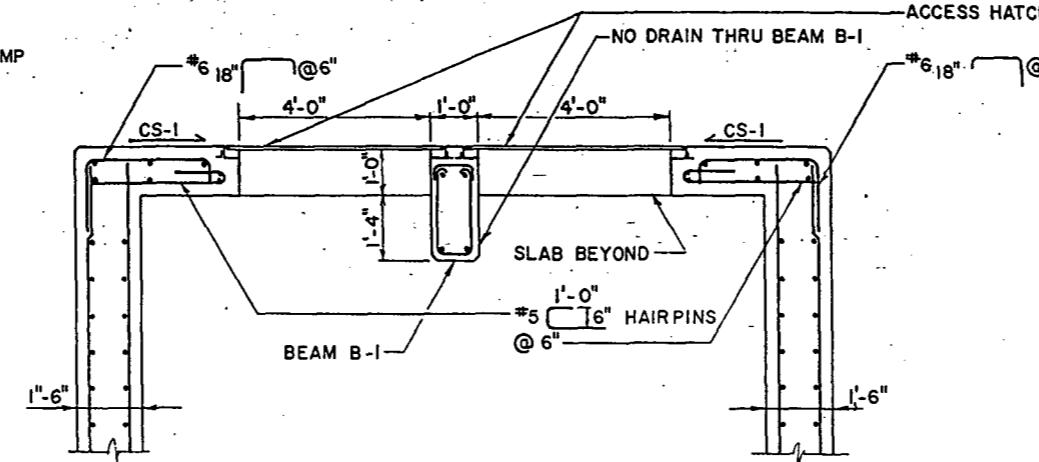
PC S1239A  
R/W S1239A  
CO S1239A  
VAULT PLAN NO. 777-422  
SHEET 7 OF 21



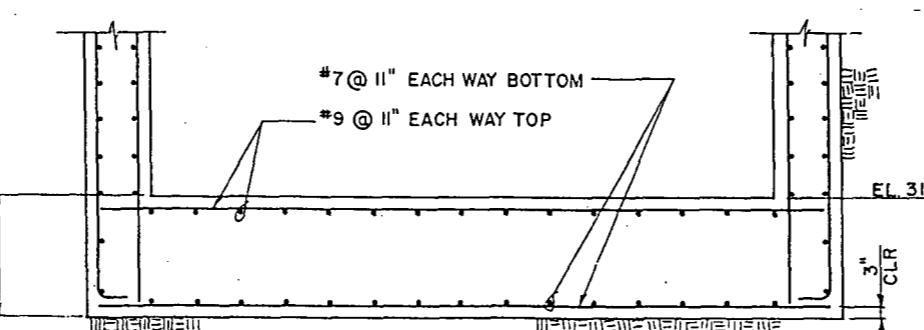
NOTE:  
NO JOINT ALLOWED IN TOP 5'-0"

**OPTIONAL PRECAST JOINT**

SCALE:  $1'' = 1'-0''$



NOTE:  
WALL MAY BE PRECAST  
SEE OPTIONAL PRECAST  
JOINT DETAIL AT LEFT.



**SECTION**

SCALE:  $1/2'' = 1'-0''$

A

**STRUCTURAL NOTES**

**CODE REQUIREMENTS:** All design and construction shall conform to the requirements of the Uniform Building Code, 1985 edition, WSDOT Standard Specifications with City of Seattle Supplements.

**DESIGN LOADS:** In addition to the dead loads, the following were used for design:

Station Lid: HS-20  
Roof: 25 psf L:L.  
Wind 80 MPH-Exposure C  
Allowable soil bearing pressure 2000 psf

**SUBMITTALS:** Shop drawings shall be submitted to the engineer prior to any fabrication or construction for all structural items including the following: concrete reinforcement, embedded steel items, structural steel, metal grating. If the shop drawings differ from or add to the design of the structural drawings, they shall bear the seal and signature of a Washington State Registered Structural Engineer.

**SPECIAL CONDITIONS:** Contractor shall verify all dimensions in the field and shall provide adequate shoring and bracing of all structural members during construction. Contractor shall notify the Engineer of all field changes prior to installation or fabrication.

**CONCRETE:**

f'c (psi)	Location
4000	Class AX Walls and Lid
3000	Class B Slab on Grade, Foundations

A water-reducing admixture shall be incorporated in concrete design mixes. An air entraining agent shall be used in all concrete mixes. The amount of entrained air shall be  $5\% \pm 1\%$  by volume. CaCl₂ or other water-soluble chloride ion admixtures shall not be used unless approved by the Engineer.

**REINFORCING STEEL:** All reinforcing steel shall be in accordance with ASTM A-615, Grade 60, for deformed bars and ASTM A-185, (f_y = 65,000 psi) for smooth welded wire fabric (WWF), unless otherwise noted.

Reinforcing steel shall have protection as follows:

Use	Cover
Beams and Column Bars	1-1/2" (to stirrups or ties)
Slab Bars	1 1/2"
Joist Bars	1-1/2"
Wall Bars: Interior faces	1 1/2"
Exposed to weather	1-1/2"
Or Earth	2" (#5 and smaller) 2 1/2" (#6 and larger)
Footing Bars	3"

Structural Plans and Sections "AS-BUILT" PER PLAN EXCEPT AS NOTED

metrix, Inc.  
Post Office Box 460  
Summer, Washington 98390  
506-838-9810 206-883-5128  
1970 Auto Center Way  
Bremerton, Washington 98312  
206-377-0014

ANNE SYMONDS &  
ASSOCIATES, INC.  
CONSULTING ENGINEERS

APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON  
ATTEST: *[Signature]* *[Signature]*  
EXECUTIVE DIRECTOR PROJECT NO. *3/10/89*

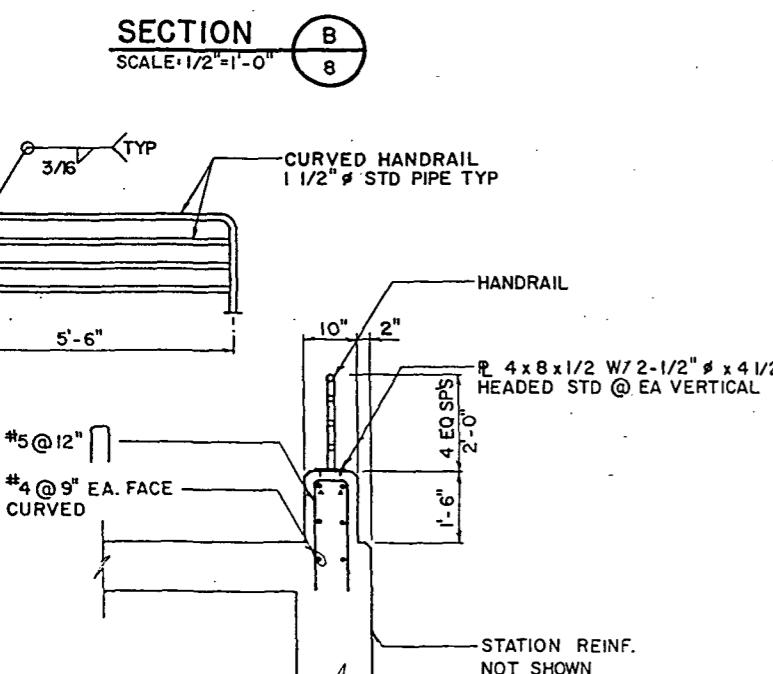
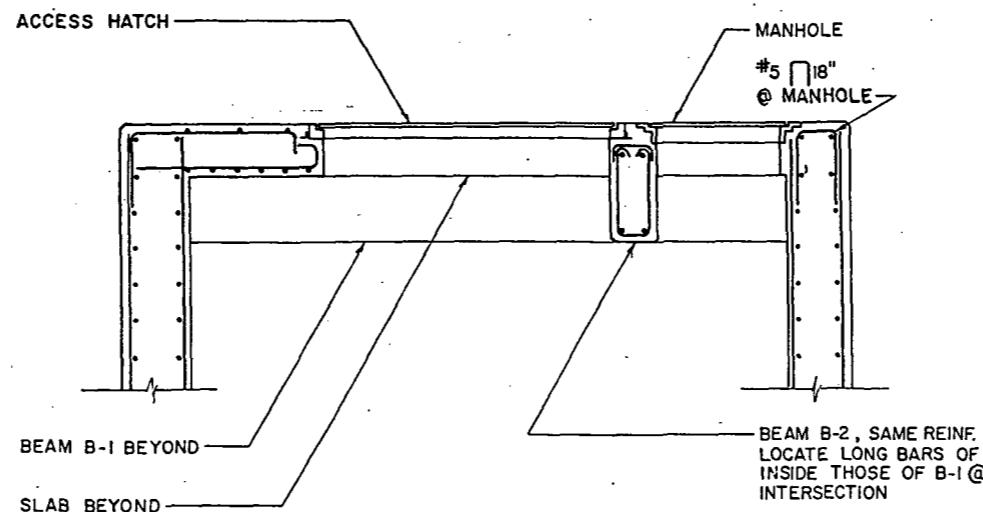
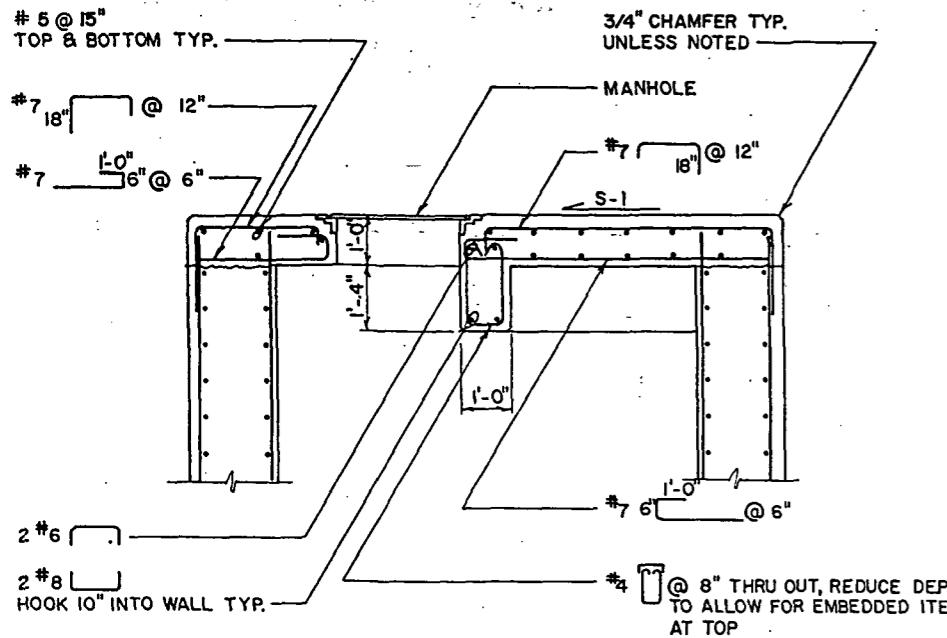
NAME OR INITIALS AND DATE  
DESIGNED D.W. SYMONDS 5/89  
CHECKED *5/10/89*  
DRAWN K.L. SCOTT 5/89  
TRANS. SVC. PROJ. MGR. *5/10/89*  
CHECKED D.W. SYMONDS 5/89  
RECEIVED *5/10/89*  
DESIGN REVIEW REVISED AS BUILT H.T. 12-06-90  
All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions

INITIALS AND DATE  
REVIEWED  
DES. CONST. PROJ. MGR. *5/10/89*  
K.L. SCOTT 5/89  
TRANS. SVC. PROJ. MGR. *5/10/89*  
D.W. SYMONDS 5/89  
RECEIVED *5/10/89*  
REVISED AS BUILT H.T. 12-06-90  
INSPECTOR'S BOOK

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. APPROVED  
FUND: INSPECTOR'S BOOK  
SCALE: AS SHOWN

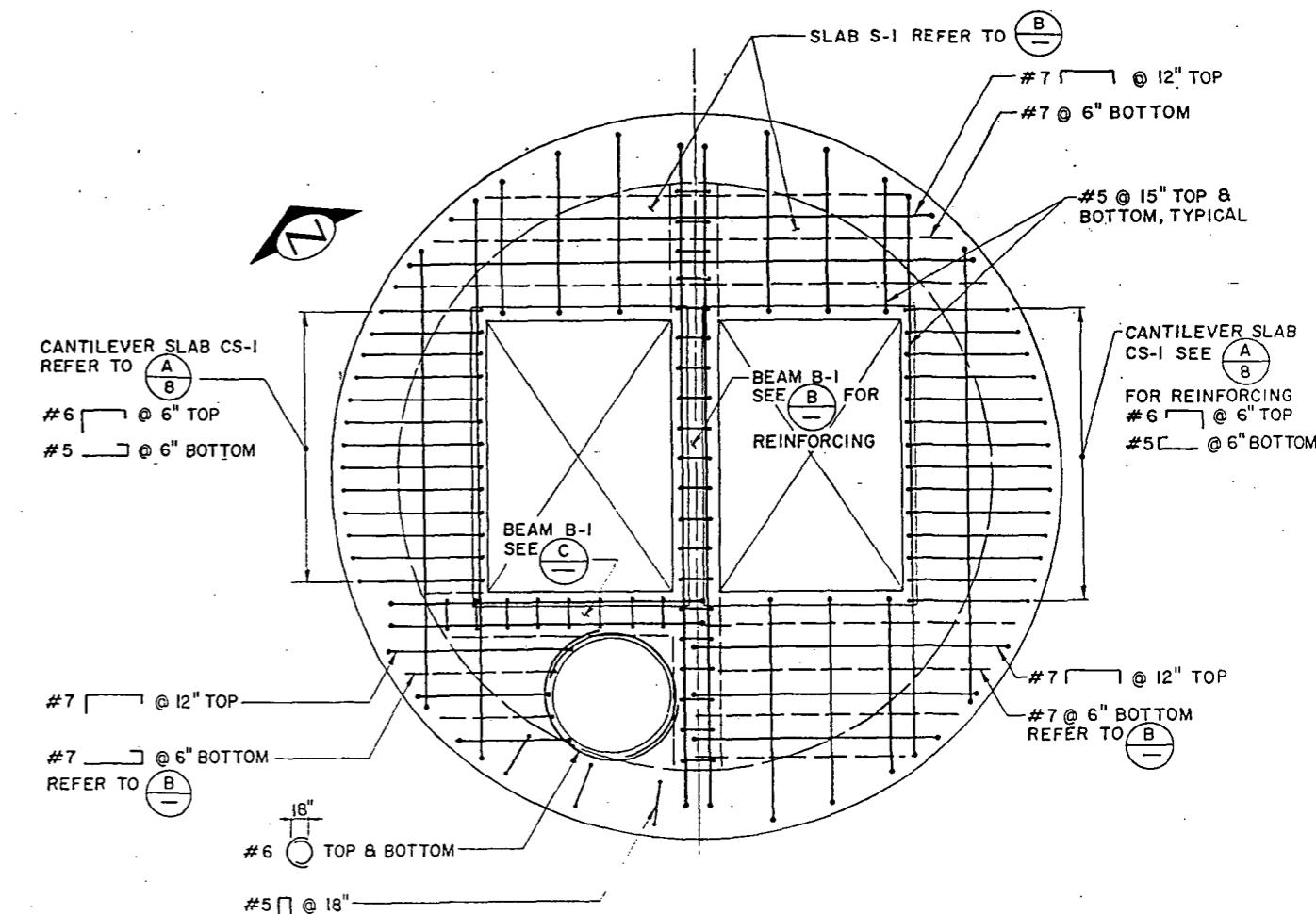
Midway Landfill Closure  
East I-5 Pump Station

PC S1239  
R/W S1239  
CO S1239  
VAULT PLAN NO. 777-422  
SHEET 8 OF 21



SECTION

SCALE: 1/2" = 1'-0"



SECTION

SCALE: 1/2" = 1'-0"

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ASSOCIATES, INC.  
CONSULTING ENGINEERS

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BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON

1989

ATTEST:

Barbara J. Palmer

EXECUTIVE DIRECTOR

PROJECT NO.

NAME OR INITIALS AND DATE  
DESIGNED D. W. SYMONDS 5/89  
CHECKED

REVIEWED:  
DES. CONST.  
TRANS. SVC. PROJ. MGR.

RECEIVED: Diana G. 5/22/89

DESIGN REVIEW: REVISED AS BUILT H.C. 12-06-90

REVIEWED AS BUILT H.C. 12-06-90

RECEIVED: Diana G. 5/22/89

DESIGN REVIEW: REVISED AS BUILT H.C. 12-06-90

REVIEWED AS BUILT H.C. 12-06-90

RECEIVED: Diana G. 5/22/89

DESIGN REVIEW: REVISED AS BUILT H.C. 12-06-90

REVIEWED AS BUILT H.C. 12-06-90

RECEIVED: Diana G. 5/22/89

DESIGN REVIEW: REVISED AS BUILT H.C. 12-06-90

REVIEWED AS BUILT H.C. 12-06-90

RECEIVED: Diana G. 5/22/89

DESIGN REVIEW: REVISED AS BUILT H.C. 12-06-90

REVIEWED AS BUILT H.C. 12-06-90

RECEIVED: Diana G. 5/22/89

DESIGN REVIEW: REVISED AS BUILT H.C. 12-06-90

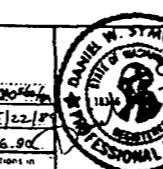
REVIEWED AS BUILT H.C. 12-06-90

RECEIVED: Diana G. 5/22/89

DESIGN REVIEW: REVISED AS BUILT H.C. 12-06-90

REVIEWED AS BUILT H.C. 12-06-90

RECEIVED: Diana G. 5/22/89



THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING

ORDINANCE NO.

FUND:

SCALE: AS SHOWN

APPROVED

INSPECTOR'S BOOK

### TOP SLAB REINFORCING PLAN

SCALE: 1/2" = 1'-0"

Structural Sections and Details

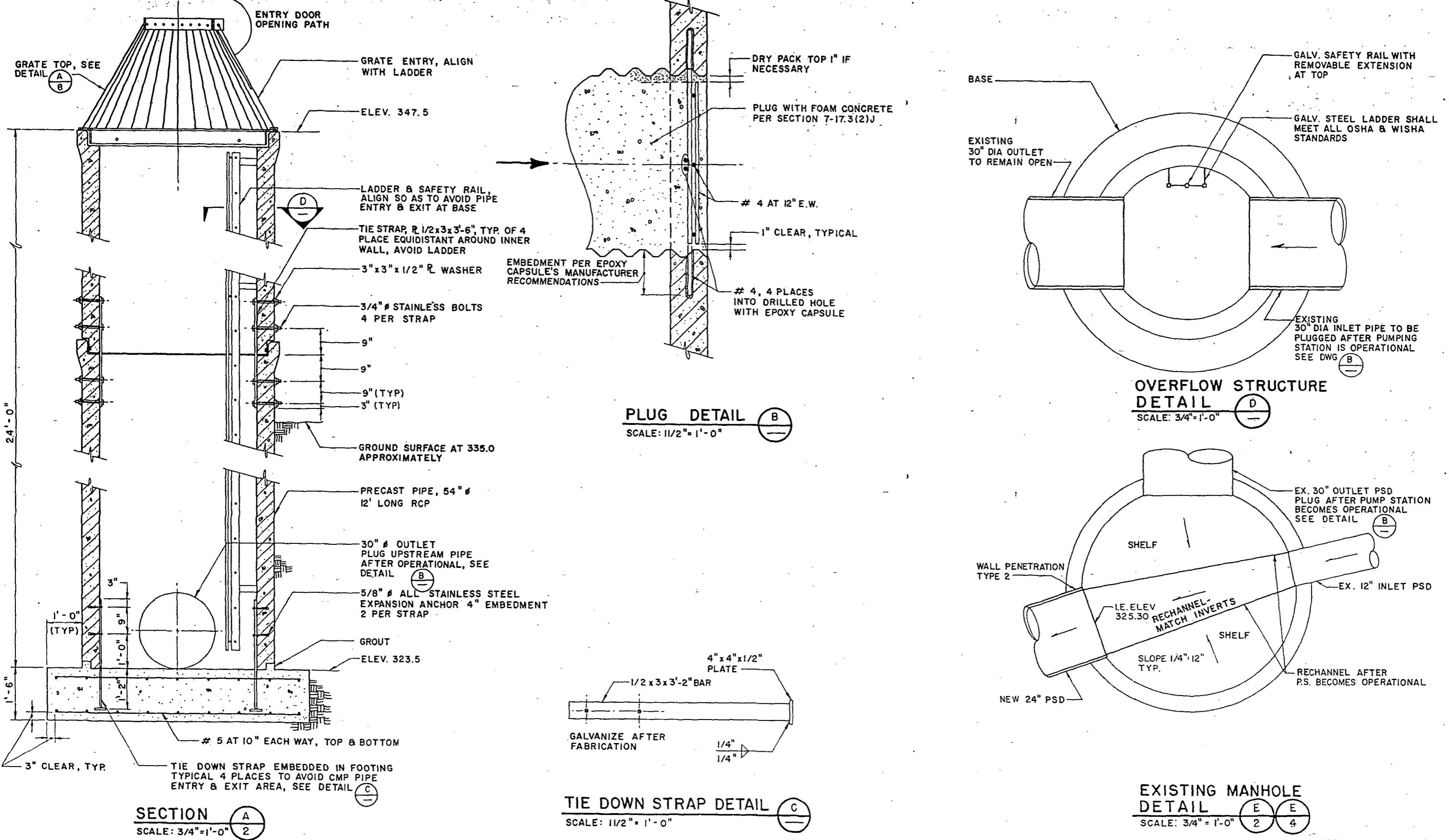
Midway Landfill Closure

East I-5 Pump Station

PC S1239A  
R/W S1239B  
CO S1239C

Vault Plan No. 777-422

Sheet 9 of 21



"AS BUILT" PER PLAN EXCEPT AS NOTED

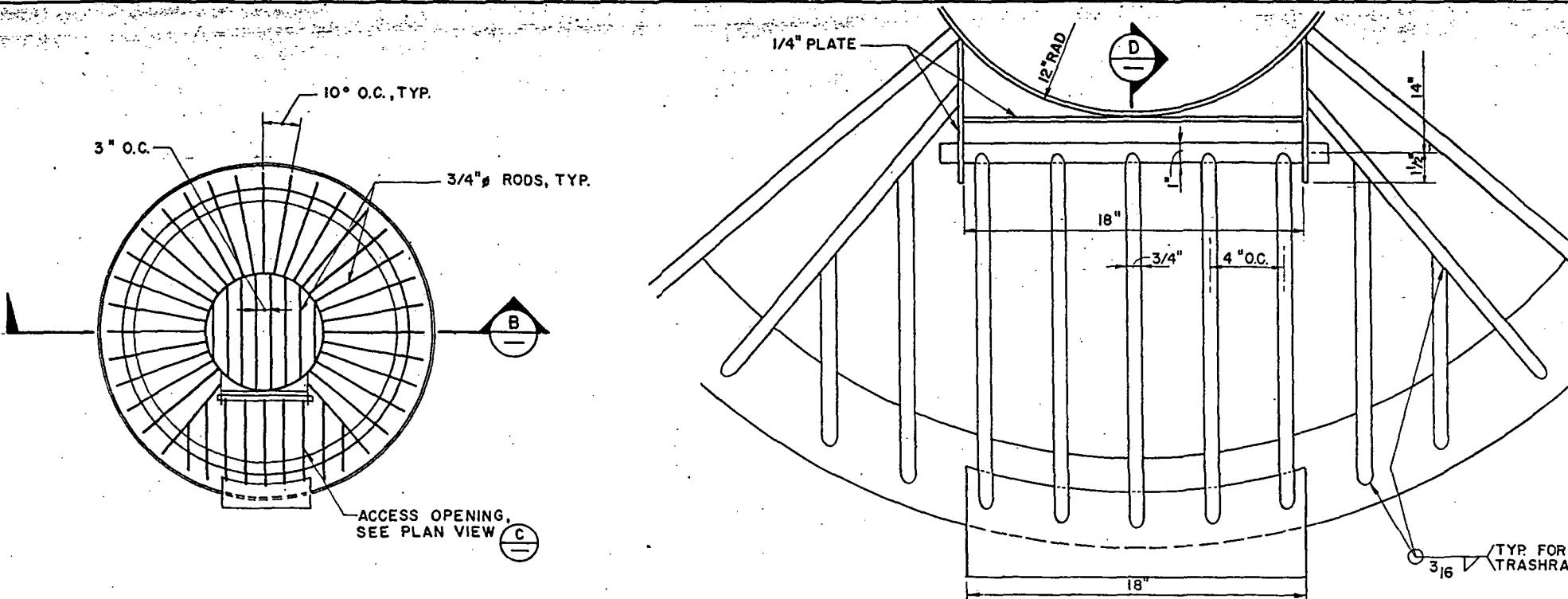
Overflow Structure Section and Details

Midway Landfill Closure

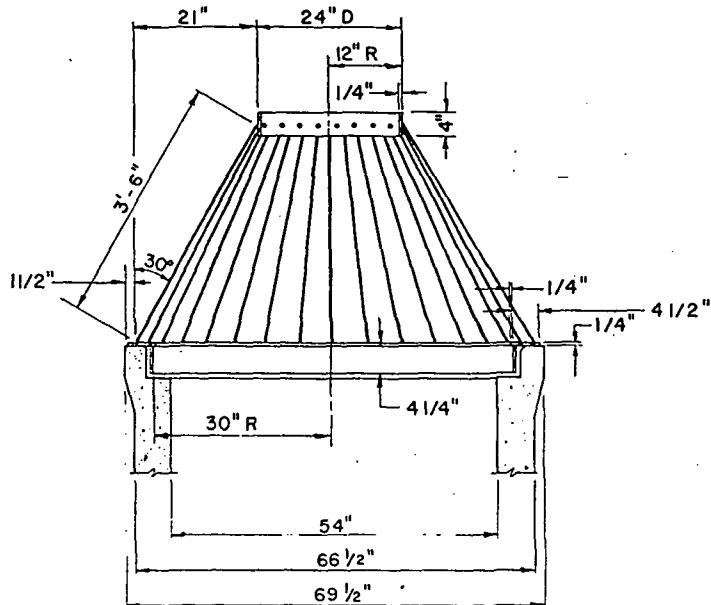
East I-5 Pump Station

JOB NO.	PC S1239A
R/W	S1239B
CO	S1239C

VULT PLAN NO 777-422

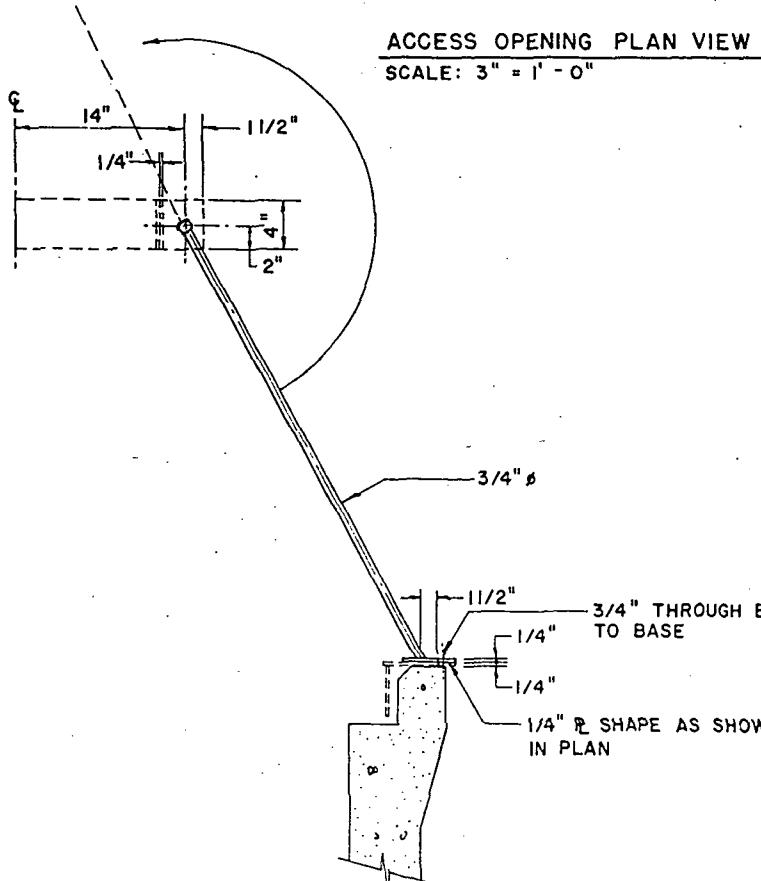


PLAN VIEW



NOTE:  
GALVANIZE ENTIRE ASSEMBLY  
AFTER FABRICATION.

SECTION B



SECTION C

### BEEHIVE TRASHRACK DETAIL

A  
10

D

* * * * * PER PLAN EXCEPT AS NOTED

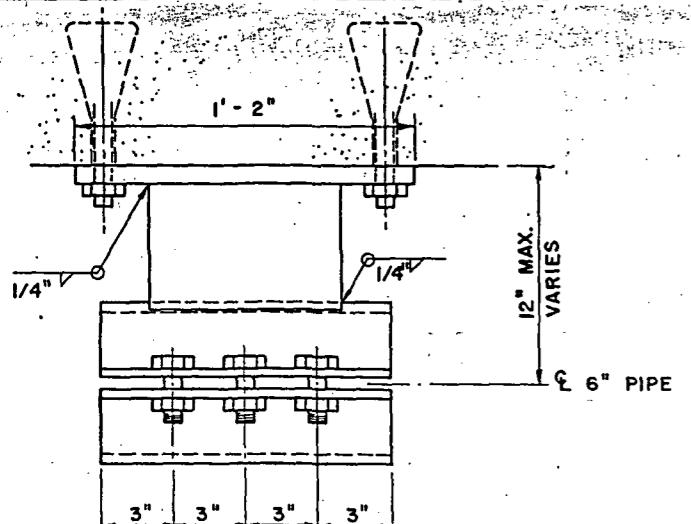
### Overflow Structure Details

Midway Landfill Closure

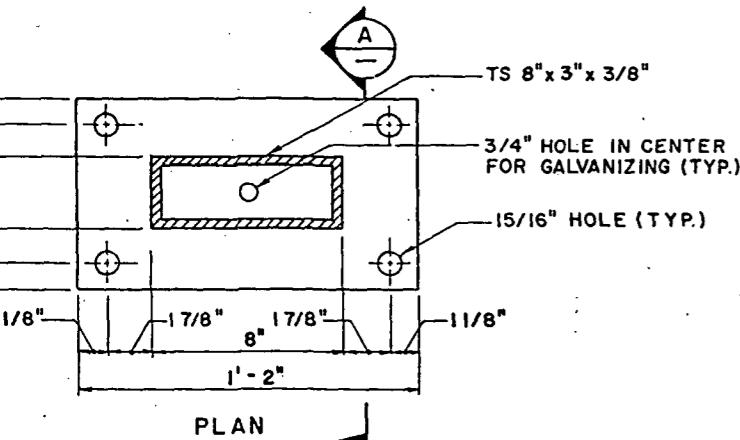
East I-5 Pump Station

PC	S12393
R/W	S12393
CO	S12393
VAULT PLAN NO	777-422
JOB	

SHEET 11 OF 21

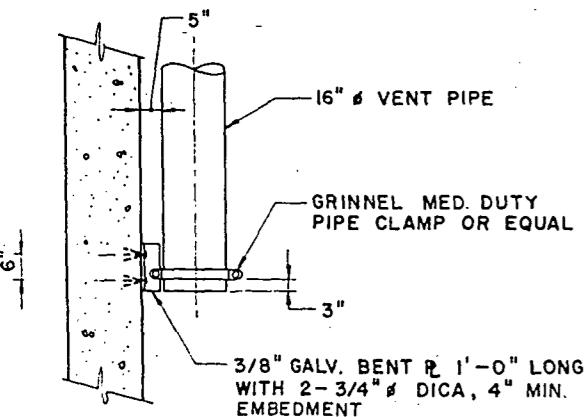


ELEVATION



PLAN

### MOMENT RESISTANT HANGER TYPE 1



### VENT SUPPORT

SCALE: 1/2" = 1'-0"

metrix, Inc.  
Office Box 469  
Bellevue, Washington 98020  
206-683-5128  
206-455-2550  
120 Center Way  
Bellevue, Washington 98005  
206-377-0014

ANNE SYMONDS &  
ASSOCIATES, INC.  
CONSULTING ENGINEERS

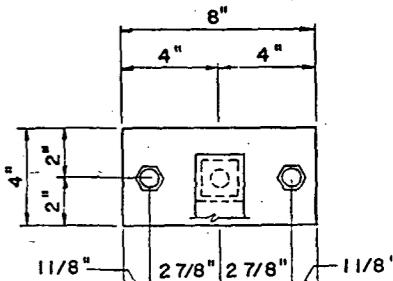
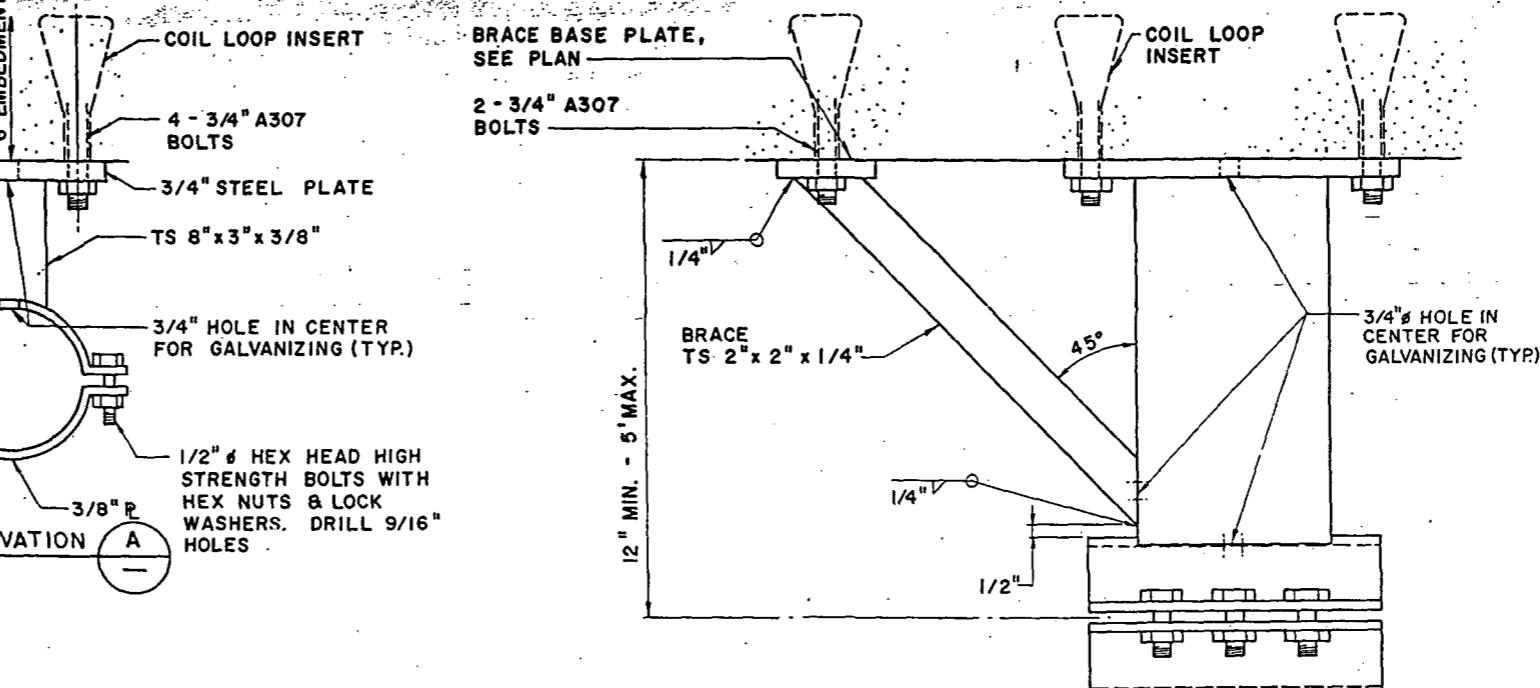
APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON  
ATTEST:  
Anne Symonds, P.E.  
Executive Director  
PROJECT NO. 7x1989

NAME OR INITIALS AND DATE  
DESIGNED D.W. SYMONDS 5/99  
CHECKED G.A. CIAPPINI 5/99  
DRAWN G.A. CIAPPINI 5/99  
CHECKED D.W. SYMONDS 5/99  
DESIGN REVIEW

INITIALS AND DATE  
REVIEWED  
DES. CONST.  
TRANS SYC PROJ MGR  
RECEIVED Anne Symonds 5/20/99  
REVISED AS BUILT H.T. 12-06-99

DANIEL W. SYMONDS  
PROFESSIONAL ENGINEER  
ORDINANCE NO.  
FUND:  
SCALE: 3" = 1'-0"

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
APPROVED  
INSPECTOR'S BOOK



### BRACE BASE PLATE PLAN

#### NOTE:

TYPE 2 PIPE HANGER SIMILAR TO  
TYPE 1 WITH ADDITIONAL BRACE  
BASE PLATE AND BRACE AS SHOWN.

### MOMENT RESISTANT HANGER TYPE 2

#### SECTION B

NOTE:  
BASE PLATE AND BRACE BASE PLATE  
OCCUR IN VARIOUS POSITIONS WITH  
VARYING GEOMETRY, DIMENSIONS AND  
ANGLES MAY VARY FOR EACH HANGER.

#### NOTES:

1. PIPE HANGER TYPE 1 USED ONLY WHEN PIPE 6"  
TO WALL DISTANCE IS LESS THAN 12 INCHES.
2. PIPE HANGER TYPE 2 USED WHEN PIPE 6"  
TO WALL DISTANCE IS GREATER THAN 12 INCHES  
AND LESS THAN 5 FEET.
3. GALVANIZE AFTER FABRICATION.

### Pipe and Duct Hanger Details

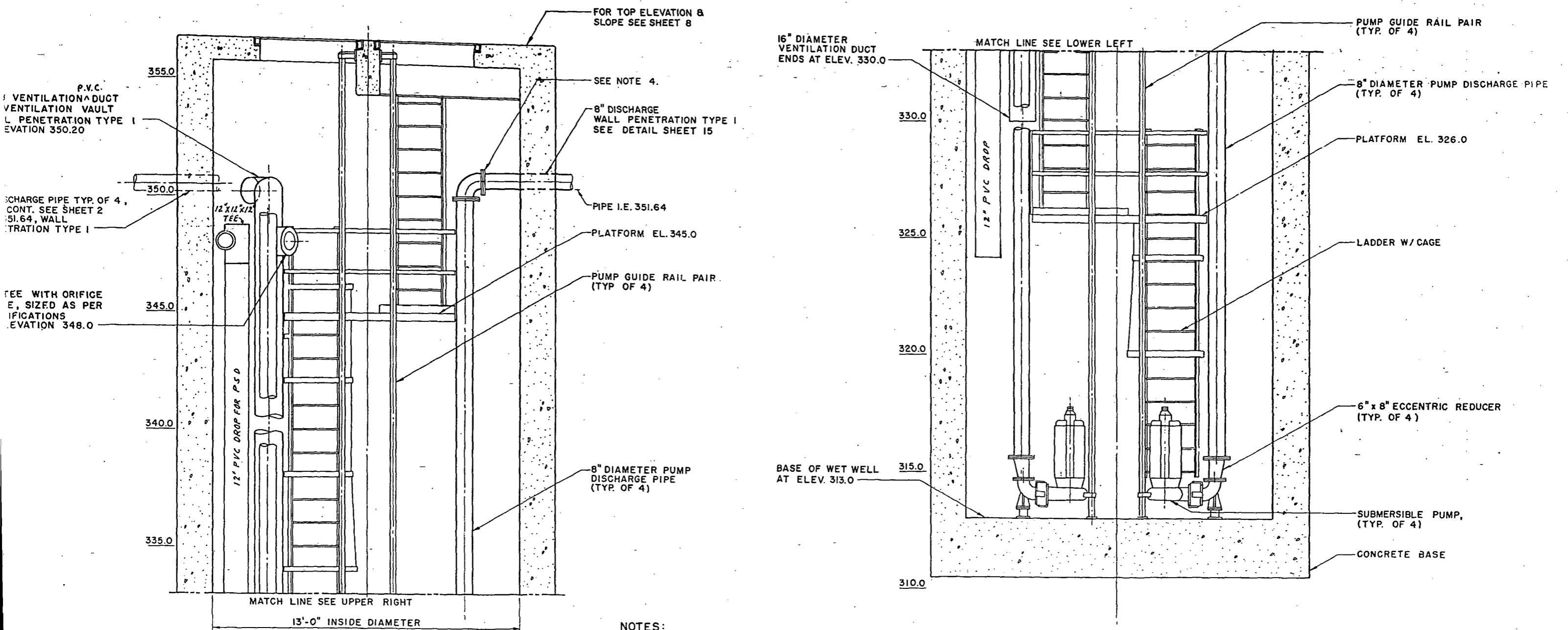
"AS-BUILT" PER PLAN EXCEPT AS NOTED

Midway Landfill Closure

East I-5 Pump Station

PC	S1239
R/W	S1239E
CO	S1239C
VAULT PLAN NO	777-422
SHEET	12 OF 21





NOTES:

1. WALL THICKNESS AND DEPTHS SHOWN APPROXIMATELY ONLY. SEE STRUCTURAL DRAWINGS FOR DIMENSIONS.
2. PIPE SUPPORTS NOT SHOWN FOR CLARITY, PIPE SUPPORTS SHALL BE PLACED AS NOTED IN THE SPECIFICATIONS. SEE PIPE SUPPORT DETAILS ON SHEET 12 FOR TYPICAL DETAILS.
3. PUMP GUIDE RAIL PAIR SUPPORTS NOT SHOWN FOR CLARITY SUPPORTS SHALL BE DESIGNED, APPROVED AND PLACED AS NOTED IN THE SPECIFICATIONS.
4. ALL JOINTS IN WETWELL SHALL BE RESTRAINED FLANGED OR CUT GROOVE COUPLING.

SECTION A  
SCALE: 1/2" = 1'-0" 13

"AS BUILT" PER PLAN EXCEPT AS NOTED  
Pumping Station Mechanical Section

etrix, Inc.  
1st Office Box 460  
13020 Northup Way  
Bellevue, Washington 98005  
503-9810 206-683-3126  
370 Auto Center Way  
Everett, Washington 98214  
503-256-5444

ANNE SYMONDS &  
ASSOCIATES, INC.  
CONSULTING ENGINEERS

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SEATTLE WASHINGTON *SAC 1989*  
ATTEST: *R.P. Symonds* *C. Symonds*  
EXECUTIVE DIRECTOR CHAIRMAN PROJECT NO.

NAME OR INITIALS AND DATE  
DESIGNED B. CRAWFORD 5/89  
CHECKED A.C. SYMONDS 5/89  
DRAWN J. REZAI 5/89  
CHECKED A.C. SYMONDS 5/89  
DESIGN REVIEW: *Diana H. Gehr* 5/89  
REVIEWED AS BUILT H.T. 12.06 - 90

INITIALS AND DATE  
REVIEWS: *DE* CONST. *PROJ. MGR. C. Symonds*  
TRANS. SVC. *REC'D. Diana H. Gehr*

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. *13*  
FUND: *13*  
SCALE: 1/2" = 1'-0"

REGISTERED PROFESSIONAL ENGINEER

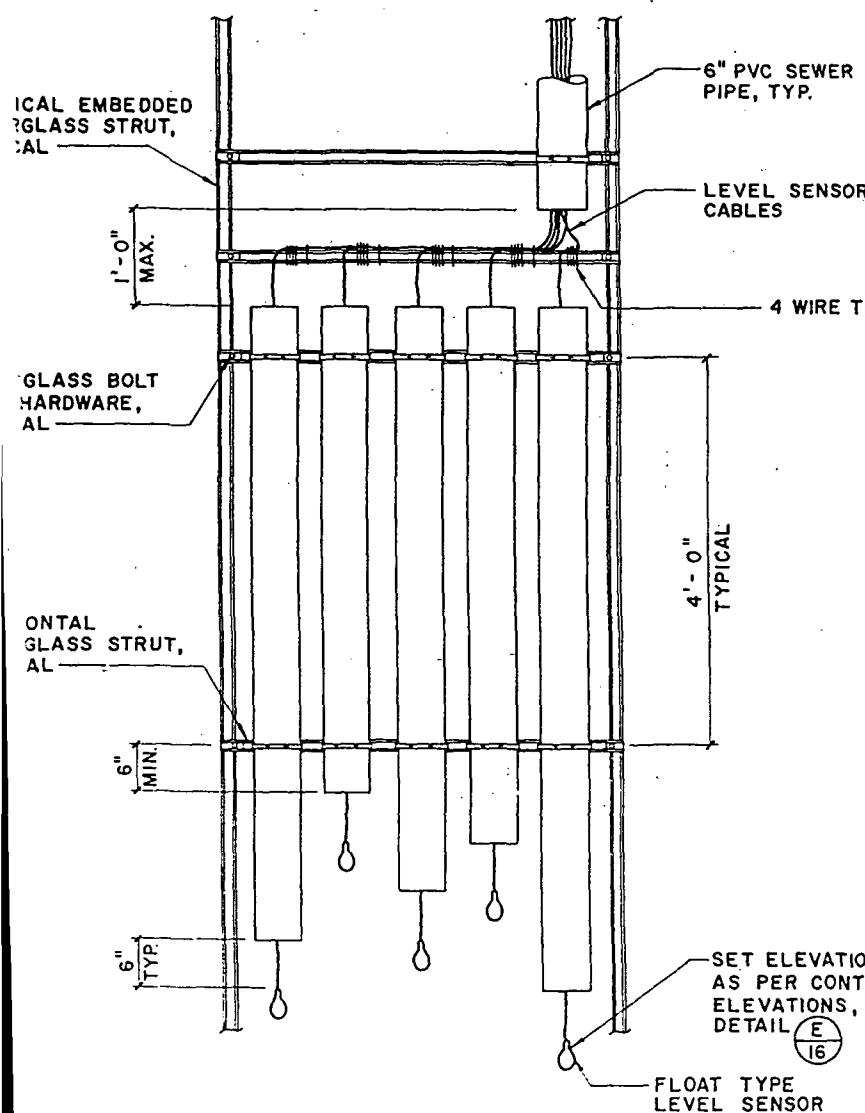
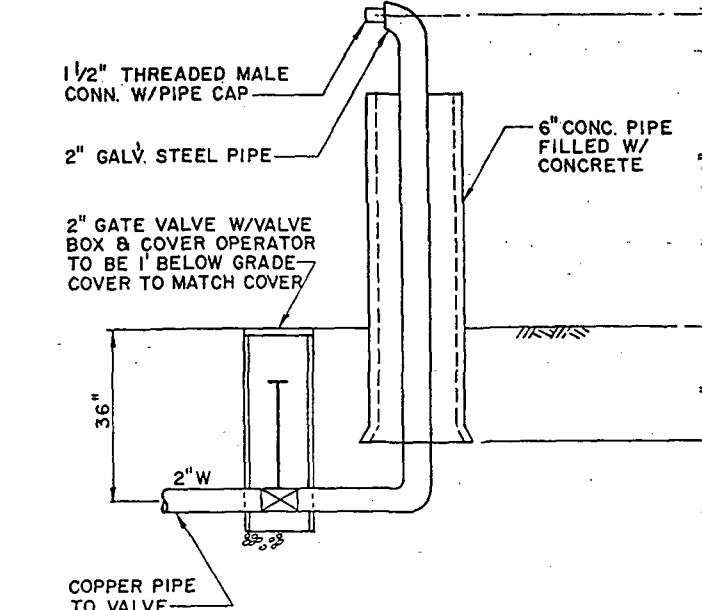
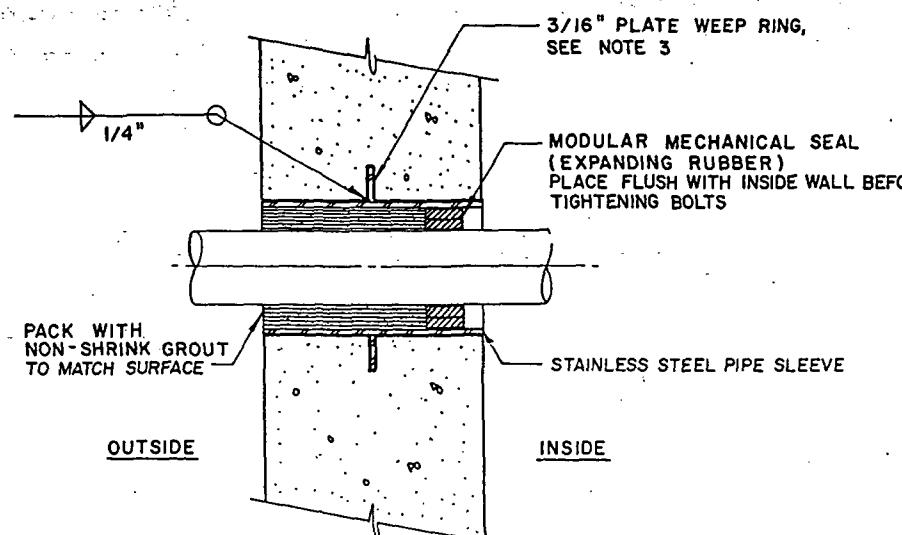
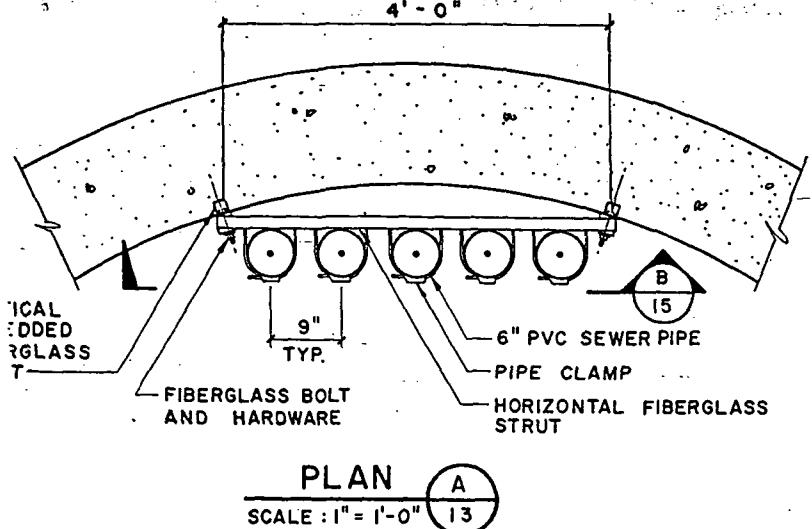
THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. *13*  
FUND: *13*  
SCALE: 1/2" = 1'-0"

APPROVED

INSPECTOR'S BOOK

Midway Landfill Closure  
East I-5 Pump Station

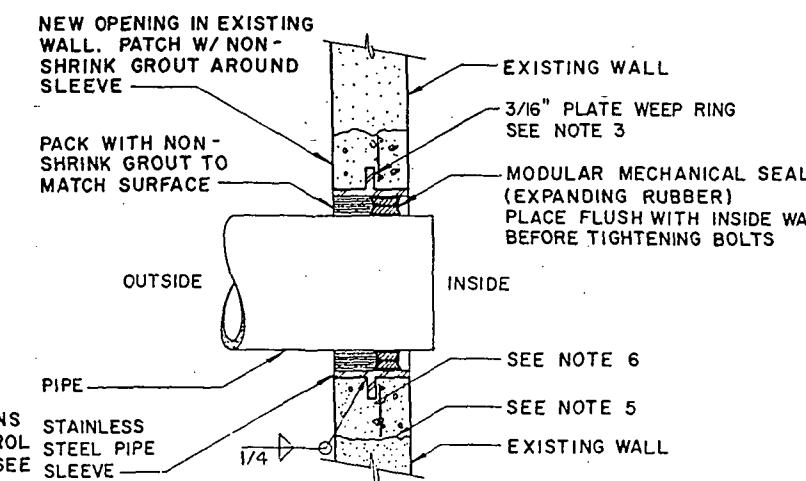
PC	S1239A
R/W	S1239B
OB	S1239C
co	S1239D
Vault Plan No	777-422
Sheet	14



**PIPE WALL PENETRATION - TYPE 1**

**NOTES:**

1. OUTSIDE SHALL MEAN EXPOSED TO EARTH OR ATMOSPHERE.
2. INSIDE SHALL MEAN INTERIOR OF WETWELL.
3. WEEP RING DIAMETER SHALL BE A MINIMUM OF 3 INCHES GREATER THAN SLEEVE PIPE DIAMETER.
4. SLEEVE DIAMETER AND THICKNESS SHALL BE AS PER SEAL MANUFACTURE'S RECOMMENDATION.
5. ROUGHEN AND EXPOSE AGGREGATE ON ALL SIDES OF OPENING. COAT ALL ROUGHENED SURFACES WITH AN EPOXY BONDING AGENT AND APPLY A COAT OF CEMENTITIOUS WATER-PROOFING TO WET SIDE SURFACE OVER AN AREA 6" BEYOND CUT EDGES.
6. #3 AT 6" E.W. SINGLE CURTAIN REINFORCEMENT, PLACE NEW REINFORCING ON Q.
7. UNLESS OTHERWISE CALLED OUT ON DRAWINGS USE TYPE 1 WALL PENETRATION IN ALL NEW STRUCTURES AND TYPE 2 WALL PENETRATION IN ALL EXISTING STRUCTURES.



**PIPE WALL PENETRATION - TYPE 2**

**EXISTING WALL**

NO SCALE

**SECTION**

SCALE: 1" = 1'-0"

**B**

**CONNECTION TO EXISTING CATCH BASIN DETAIL**

SCALE: 1/2" = 1'-0"

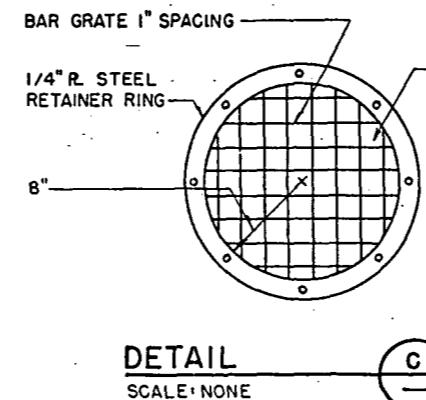
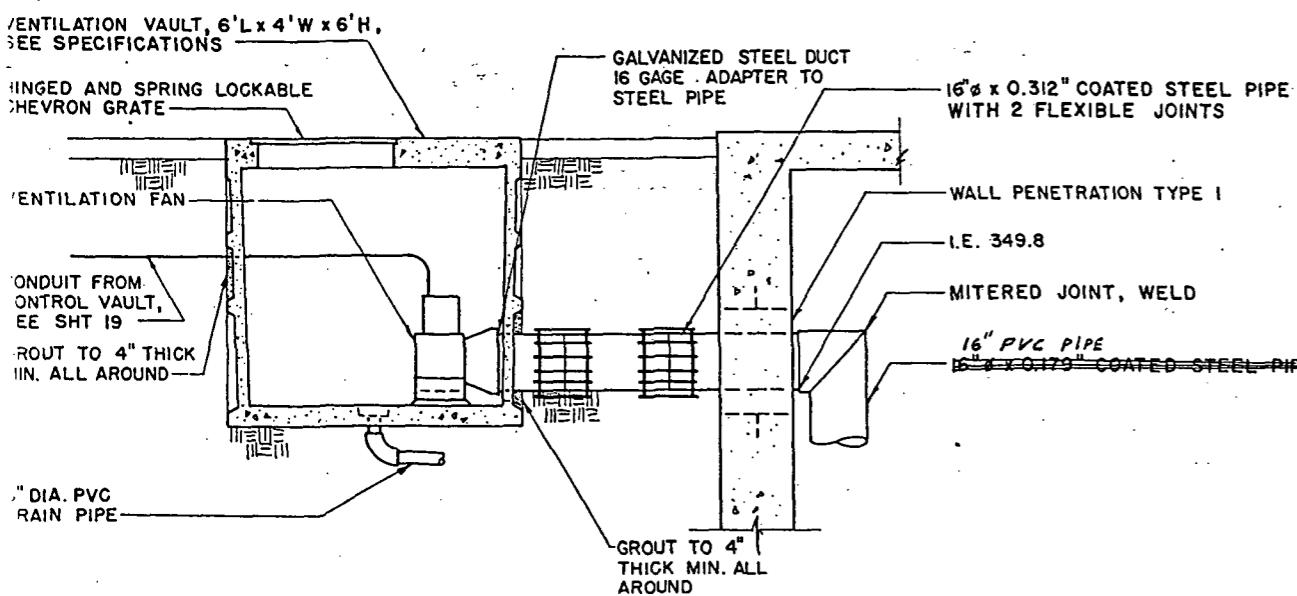
"AS BUILT" PER PLATE SHEET 18-117

**Mechanical Details**

Midway Landfill Closure

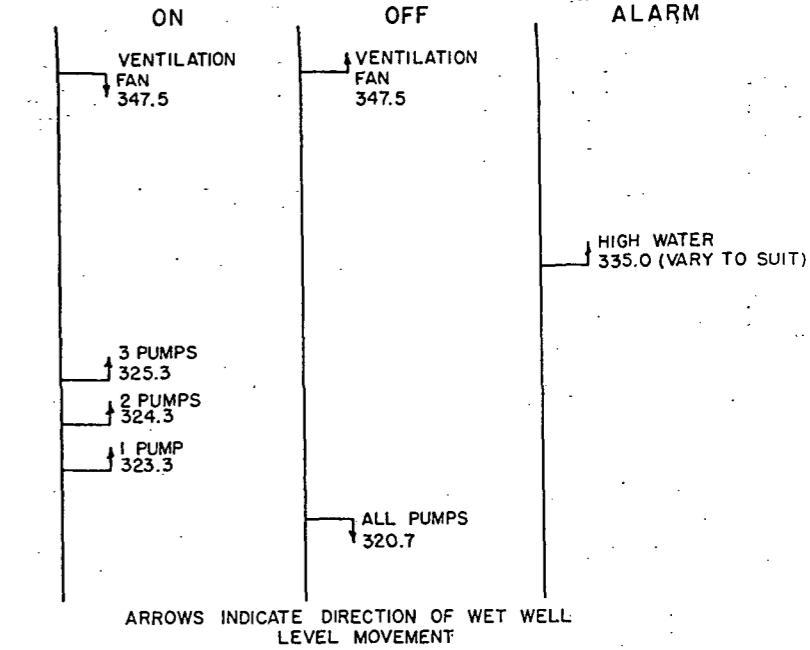
East I-5 Pump Station

PC	S1239A
R/W	S1239B
CO	S1239C
VAULT PLAN NO	777-422
JOB NO	
ORDNANCE NO.	
FUND:	
SCALE: AS NOTED	
APPROVED	
INSPECTOR'S BOOK	



PLACE WIRE SCREEN  
WITH 1/4" OPENINGS  
INSIDE BAR GRATE

DETAIL  
SCALE: NONE



ARROWS INDICATE DIRECTION OF WET WELL LEVEL MOVEMENT

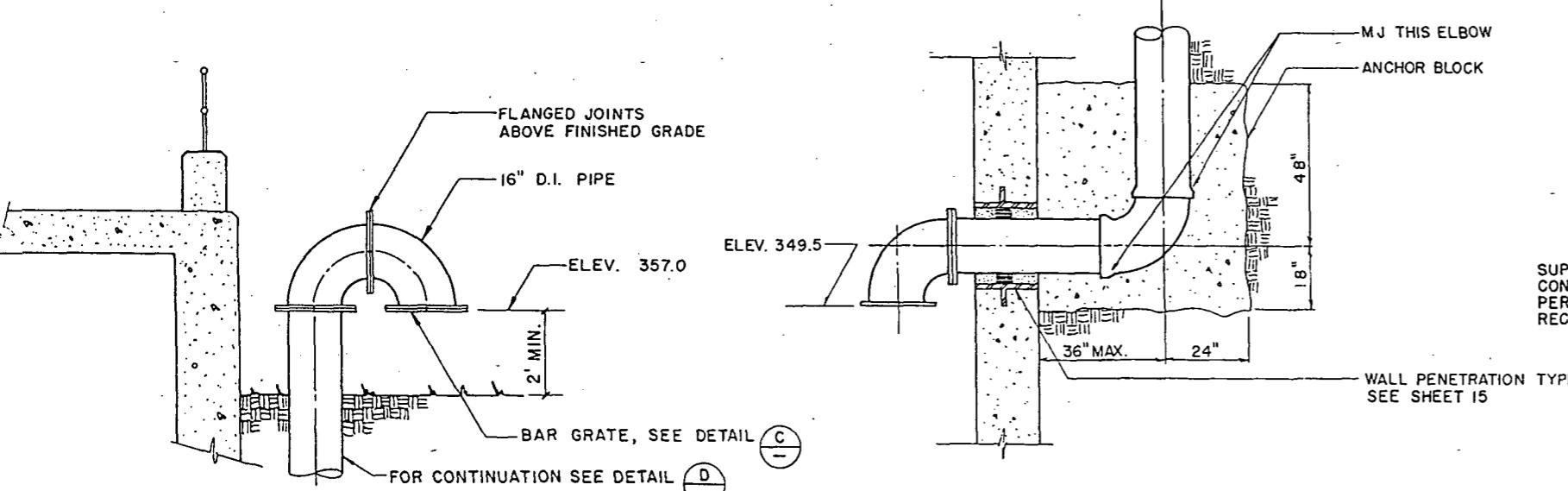
### EQUIPMENT ALARM CONTROL ELEVATIONS

E  
15

### VENTILATION VAULT A.

SCALE: 1/2" = 1'-0"

3



### DETAIL B

SCALE: 1/2" = 1'-0"

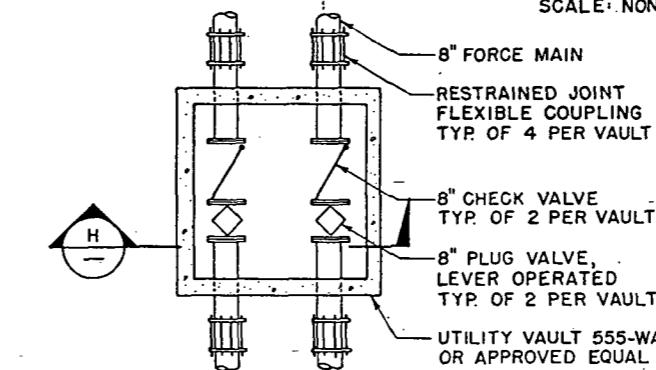
3

### DETAIL C

SCALE: 1/2" = 1'-0"

### DETAIL D

3



### VALVE VAULT F

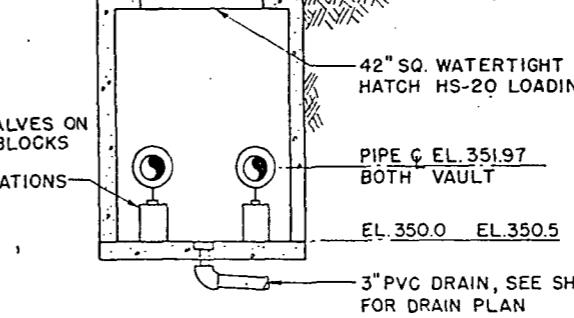
SCALE: 3/8" = 1'-0"

3

VALVE VAULT #1  
EL. 357.0      VALVE VAULT #2  
EL. 357.5

FINISHED GRADE

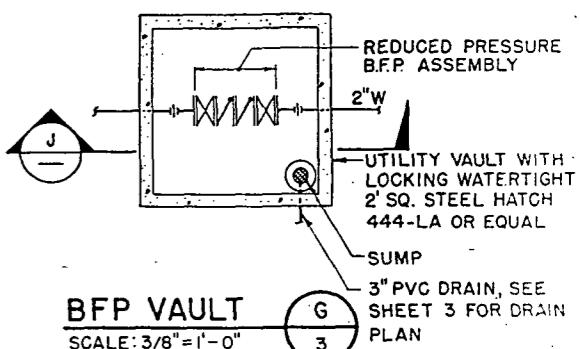
SUPPORT VALVES ON  
CONCRETE BLOCKS  
PER MNFR'S  
RECOMMENDATIONS



### SECTION H

SCALE: 3/8" = 1'-0"

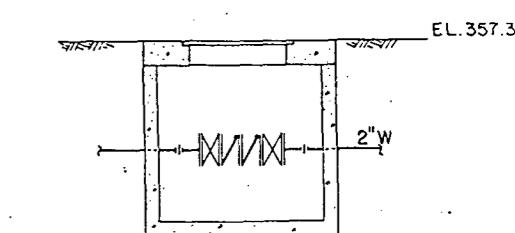
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### BFP VAULT G

SCALE: 3/8" = 1'-0"

3



### SECTION J

SCALE: 3/8" = 1'-0"

3

Midway Landfill Closure

East I-5 Pump Station

Sections and Details

"AS BUILT" PER PLAN EXCEPT AS NOTED

metrix, Inc.

1000 Monroe Way  
Seattle, Washington 98103  
206-455-2550

1320 Auto Center Way  
Spokane, Washington 99212  
208-377-0014

ANNE SYMONDS &  
ASSOCIATES, INC.  
CONSULTING ENGINEERS

APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE - WASHINGTON  
ATTEST:  
Anne Symonds, P.E.  
Executive Director  
PROJECT NO. 5/06/1989

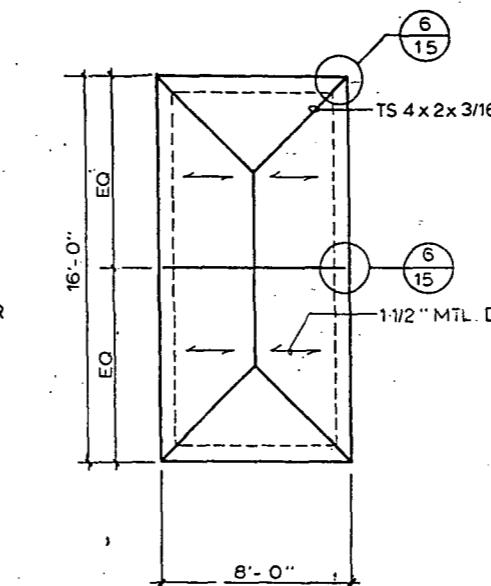
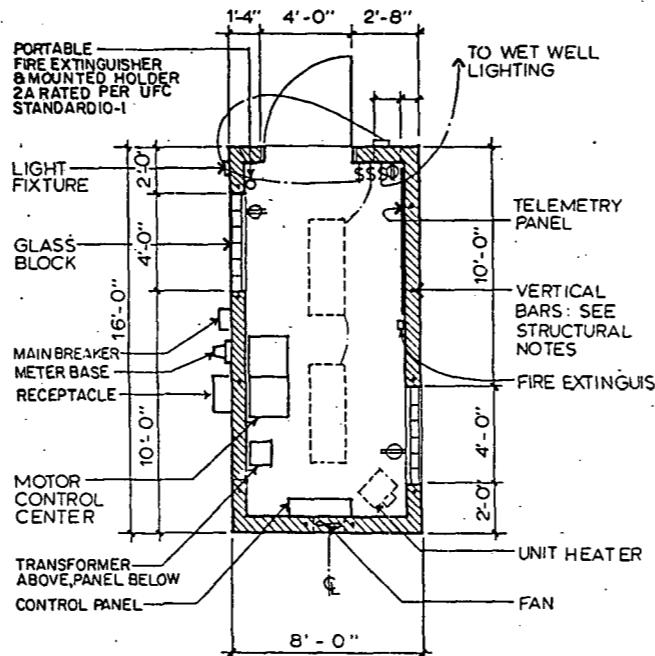
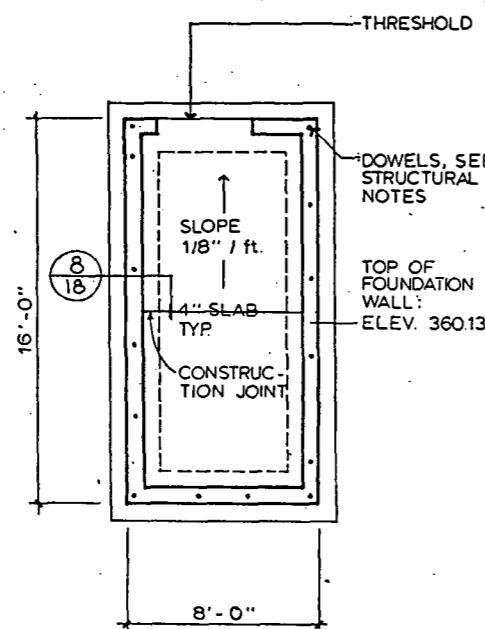
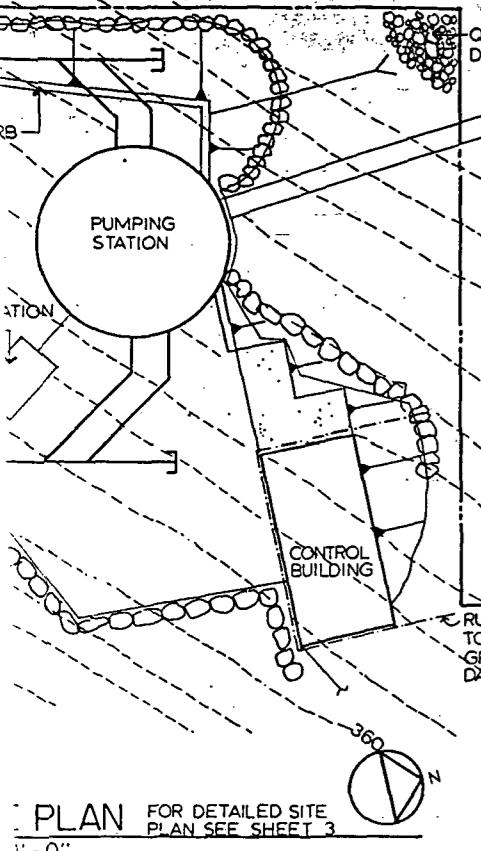
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DESIGNED B. CRAWFORD 5/89  
CHECKED A.C. SYMONDS 5/89  
DRAWN K.L. SCOTT 5/89  
CHECKED A.C. SYMONDS 5/89  
DESIGN REVIEW RECEIVED "DRAFT" 5/14/89  
REVISED AS BUILT H.T. 12-6-90  
All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions

INITIALS AND DATE  
REVIEWED:  
DES. CONST.  
TRANS. SVC. PROJ. MGR. 00754  
RECEIVED "DRAFT" 5/14/89  
REVISED AS BUILT H.T. 12-6-90  
FUND: SCALE: AS NOTED  
INSPECTOR'S BOOK

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. APPROVED  
FUND: SCALE: AS NOTED  
INSPECTOR'S BOOK

RECEIVED "DRAFT" 5/14/89  
REVISED AS BUILT H.T. 12-6-90  
FUND: SCALE: AS NOTED  
INSPECTOR'S BOOK

PC S1239A  
R/W S1239B  
CO S1239C  
VAULT PLAN NO. 777-422  
SHEET 16 OF 21

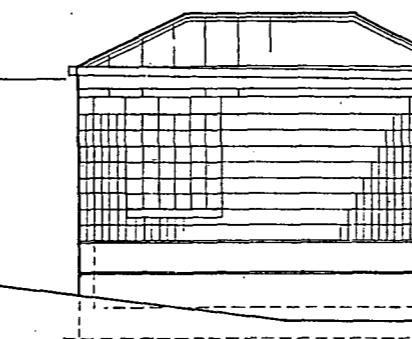
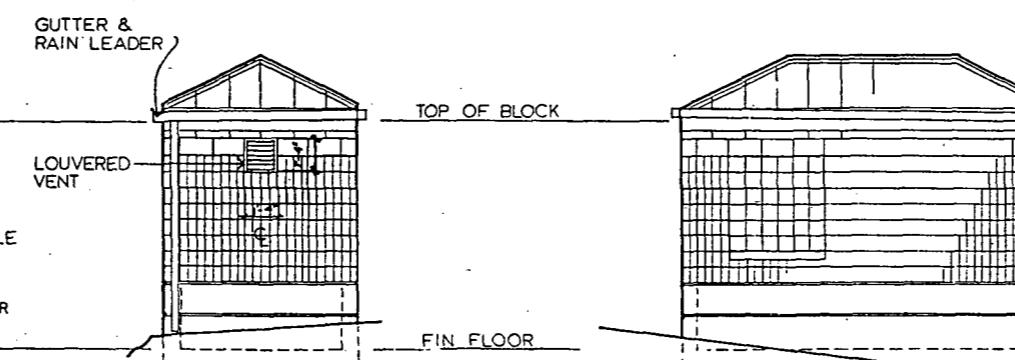
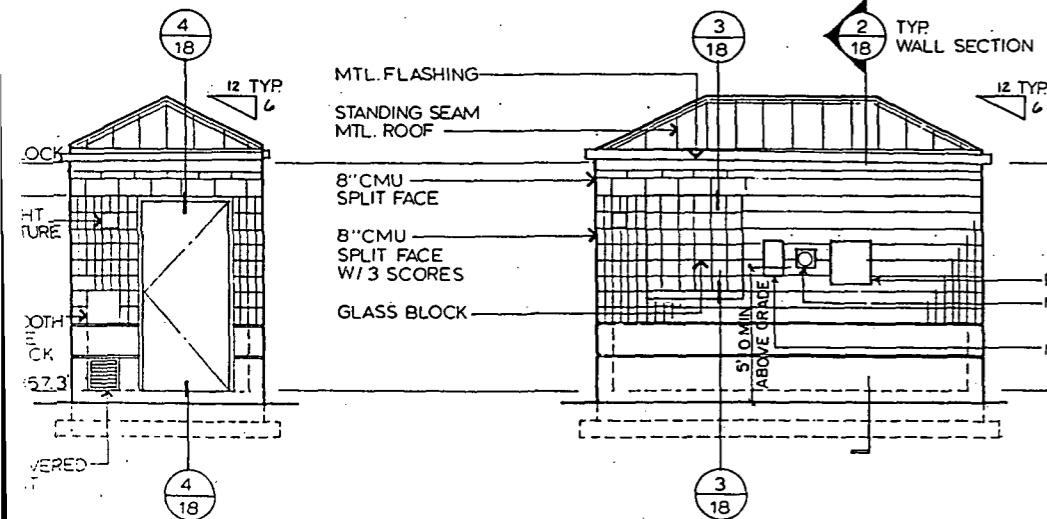


PLAN FOR DETAILED SITE PLAN SEE SHEET 3  
1'-0"

FOUNDATION PLAN  
1/4" = 1'-0"

FLOOR PLAN FOR ELECTRICAL SEE SHEET 18  
1/4" = 1'-0"

ROOF FRAMING  
1/4" = 1'-0"



"AS BUILT" PER PLAN EXCEPT AS NOTED

### Control Building: Architectural Plans & Elevations

trix, Inc.  
Box 460  
Seattle, Washington 98190  
338-3110 206-863-5129  
A-15 Center Way  
Seattle, Washington 98128  
377-0914

**edl&a**  
Maine Day LaTourelle & Associates  
**Architects**  
& Environmental Planners

13620 Northup Way  
Bellevue, Washington 98005  
206-455-2550  
6130 NE 76th Court, Suite C-7  
Portland, Oregon 97218  
503-256-5444

Terminal Sales Building Suite 500  
First & Virginia  
Seattle, Washington 98101

APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON 5/26/1989  
ATTEST: *[Signature]*  
Chairman  
Executive Director  
PROJECT NO.

NAME OR INITIALS AND DATE  
DESIGNED.....  
CHECKED.....  
DRAWN.....  
RECEIVED.....  
DESIGN REVIEW.....  
REvised AS BUILT, H.T. 12-6-90.

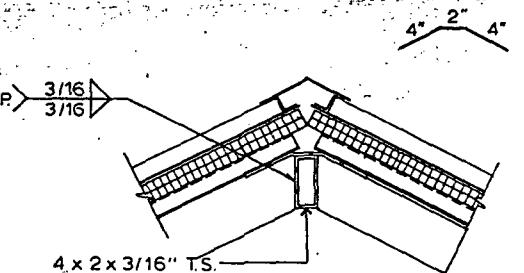
INITIALS AND DATE  
REVIEWED.....  
CONSTR. PROJ. MGR. *[Signature]*  
TRANS. SVC. *[Signature]*  
RECEIVED *[Signature]*  
REVISED AS BUILT, H.T. 12-6-90.

REGISTERED ARCHITECT  
STATE OF ALASKA  
*[Signature]*

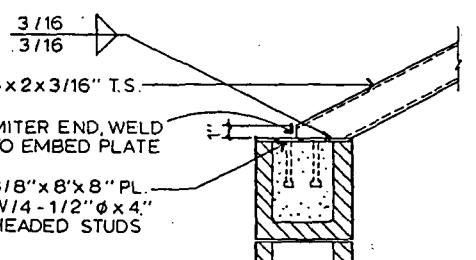
THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO.  
FUND: AS NOTED  
SCALE: AS NOTED  
APPROVED  
INSPECTOR'S BOOK

Midway Landfill Closure  
I-5 / East Drainage

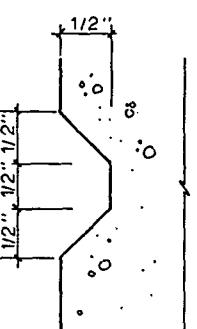
PC S123-  
R/W S1239-  
CO S123G-  
VAULT PLAN NO. 777-422  
SHEET 17 OF 21



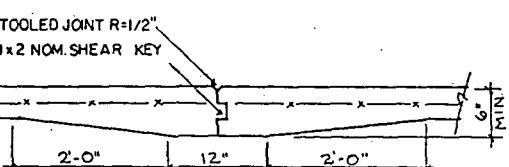
5 RIDGE / HIP DETAIL  
18 11/2 " = 1' - 0".



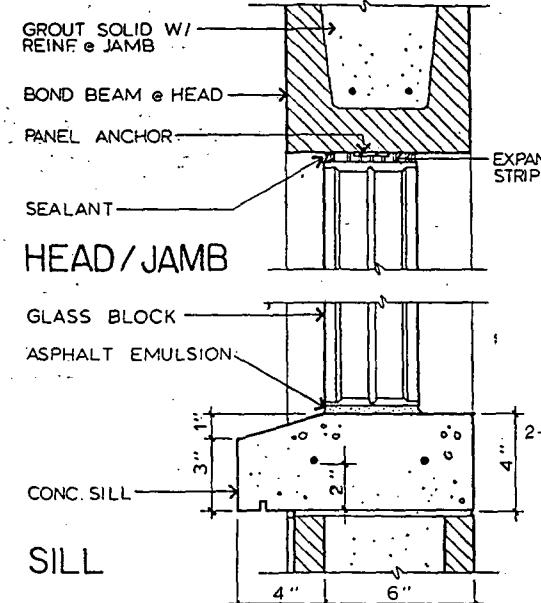
**6** ROOF DETAIL  
**18**  $1\frac{1}{2}$ " = 1'-0"



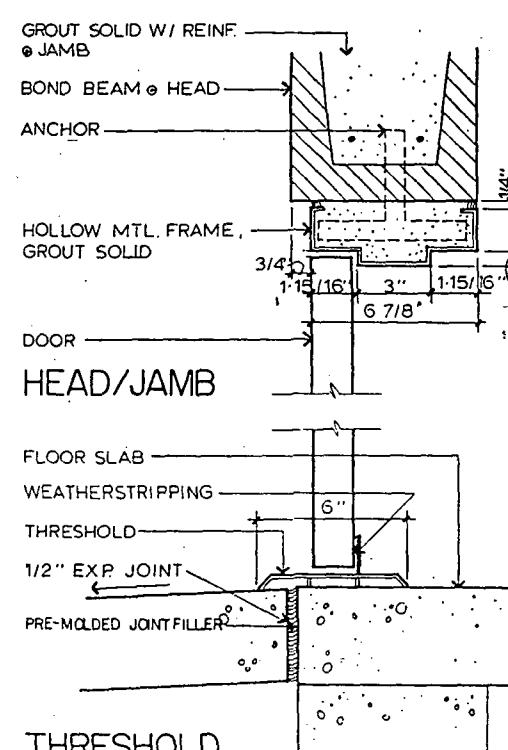
**REVEAL**  
FULL SCALE



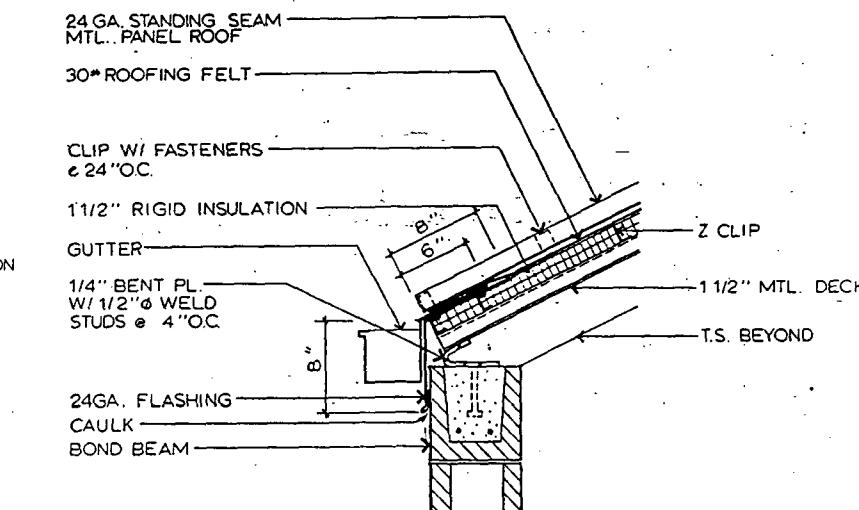
**8** CONSTRUCTION JOINT  
**18** NO SCALE



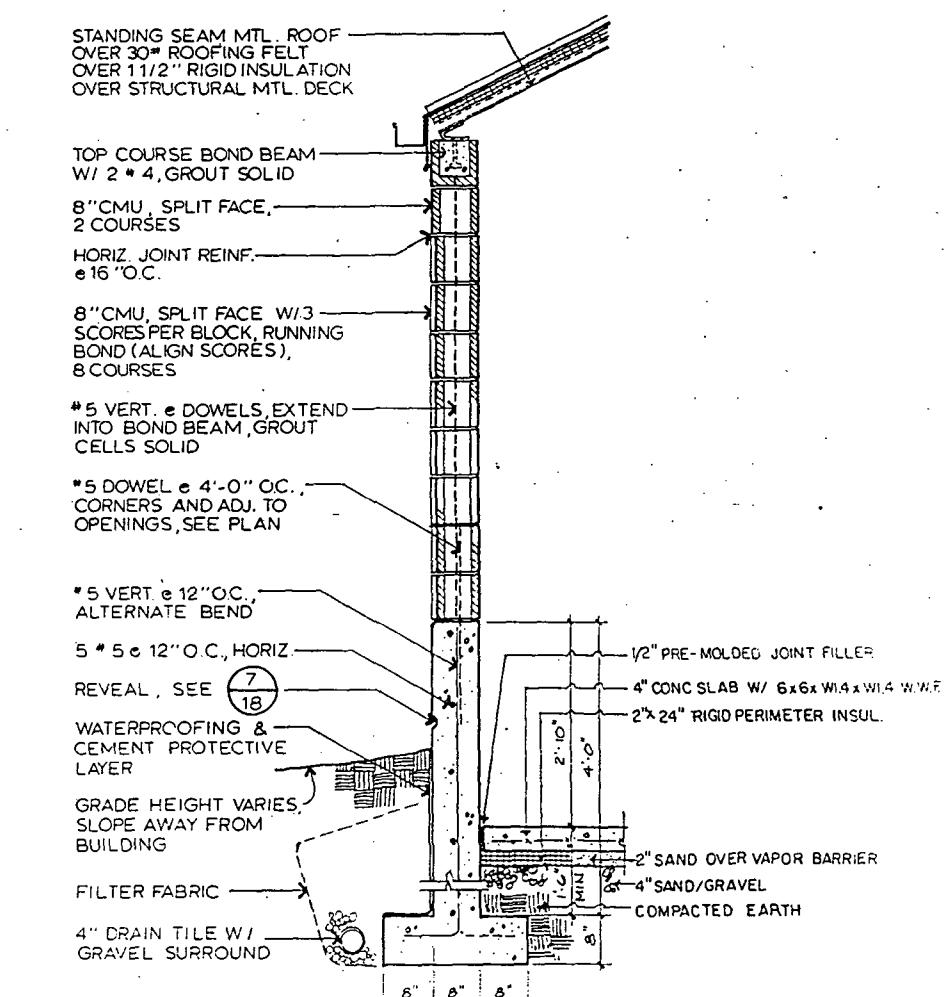
**GLASS BLOCK DETAIL**



4-18 DOOR DETAIL  
3" = 1'-0"



**EAVE DETAIL**



WALL SECTION

## Control Building : Architectural Details

"AS BUILT" PER PLAN EXCEPT AS NOTED

**triX, Inc.**  
 P.O. Box 460  
 Seattle, Washington 98101  
 206-663-5128  
 : Auto Center Way  
 Seattle, Washington 98112  
 377-0014

13020 Northup Way  
 Bellevue, Washington 98005  
 206-455-2550

6130 NE 78th Court, Suite C-7  
 Portland, Oregon 97218  
 503-256-5444

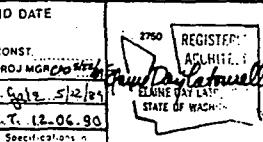


Terminal Sales Building Suite 506  
First & Virginia

APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON

ATTEST: *Barbara L. Taylor* CHAIRMAN

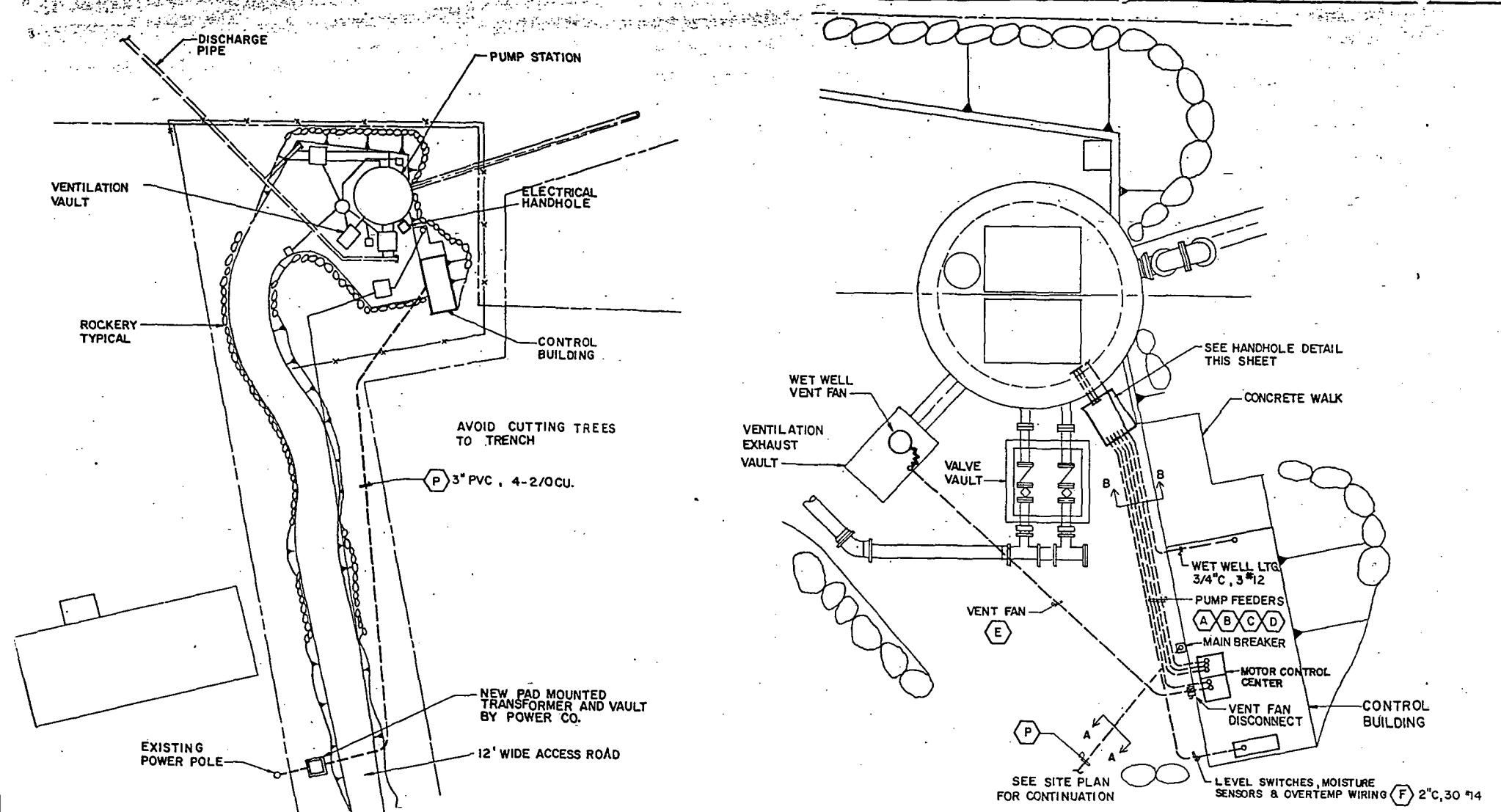
NAME OR INITIALS AND DATE		INITIALS AND DATE
DESIGNED		REVIEWED
CHECKED		DES. C.
DRAWN	SMB	TRANS. SVC. P.
CHECKED	5/89	RECEIVED <i>Design H</i>
DESIGN REVIEW		REVISED AS BUILT N
All work done in accordance with the City of Seattle Standard Plans and Specifications		



**THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING**

Midway Landfill Closure

### I-5/Fast Drainage



SYMBOL LIST					
PLAN	DESCRIPTION	PLAN	ONE-LINE DIAGRAM	CONTROL DIAGRAM	DESCRIPTION
[Symbol: Fluorescent lighting fixture]	FLUORESCENT LIGHTING FIXTURE, SURFACE, PENDANT OR CHAIN HUNG, MOUNTED. F INDICATES FIXTURE TYPE. PI-2 INDICATES PANEL & CIRCUIT NO.	[Symbol: 75 HP]	[Symbol: 75 HP]	[Symbol: Motor horsepower]	MOTOR HORSEPOWER
[Symbol: Pushbutton]	EMERGENCY BATTERY LIGHTING FIXTURE DUPLEX, RECEPTACLE, GROUNDING TYPE PI-2 INDICATES PANEL & CIRCUIT NO.	[Symbol: PB]	[Symbol: Pushbutton symbol]	[Symbol: Pushbutton contacts]	PUSHBUTTON
[Symbol: Selector switch]	LIGHTING FIXTURE DUPLEX, RECEPTACLE, GROUNDING TYPE PI-2 INDICATES PANEL & CIRCUIT NO.	[Symbol: Selector switch]	[Symbol: Selector switch contacts]	[Symbol: Selector switch contacts]	SELECTOR SWITCH, HAND-OFF-AUTO
[Symbol: Splice]	JUNCTION BOX WITH BLANK COVER CONDUIT NUMBER	[Symbol: Splice]	[Symbol: Splice]	[Symbol: Splice]	SPICE
[Symbol: FS - float switch]	CONDUIT AND WIRING EXPOSED ON CEILING OR EXPOSED ON WALLS	[Symbol: FS]	[Symbol: FS contacts]	[Symbol: FS contacts]	FS - FLOAT. SWITCH
[Symbol: OT - overtemp cutout]	CONDUIT AND WIRING CONCEALED IN FLOOR OR UNDERGROUND	[Symbol: OT]	[Symbol: OT contacts]	[Symbol: OT contacts]	OT - OVERTEMP CUTOUT
[Symbol: Terminal at telemetry panel]	BRANCH CIRCUIT HOMERUN CONDUIT BENT DOWN OR AWAY	[Symbol: Terminal connection]	[Symbol: Terminal connection]	[Symbol: Terminal connection]	TERMINAL AT TELEMETRY PANEL
[Symbol: CR - control relay]	CONDUIT BENT UP OR TOWARD SINGLE POLE SWITCH	[Symbol: CR]	[Symbol: CR contacts]	[Symbol: CR contacts]	TERMINAL CONNECTION
[Symbol: PFR - phase failure relay]		[Symbol: PFR]	[Symbol: PFR contacts]	[Symbol: PFR contacts]	CR - CONTROL RELAY
[Symbol: M - magnetic motor starter]		[Symbol: M]	[Symbol: M contacts]	[Symbol: M contacts]	PHASE FAILURE RELAY
[Symbol: Normally open contact]		[Symbol: Normally open contact]	[Symbol: Normally open contact contacts]	[Symbol: Normally open contact contacts]	M - MAGNETIC MOTOR STARTER
[Symbol: Normally closed contact]		[Symbol: Normally closed contact]	[Symbol: Normally closed contact contacts]	[Symbol: Normally closed contact contacts]	NORMALLY OPEN CONTACT
[Symbol: Thermal overload heater]		[Symbol: Thermal overload heater]	[Symbol: Thermal overload heater contacts]	[Symbol: Thermal overload heater contacts]	NORMALLY CLOSED CONTACT
[Symbol: Disconnect switch]		[Symbol: Disconnect switch]	[Symbol: Disconnect switch contacts]	[Symbol: Disconnect switch contacts]	TERMAL OVERLOAD HEATER
[Symbol: Fuse]		[Symbol: Fuse]	[Symbol: Fuse contacts]	[Symbol: Fuse contacts]	DISCONNECT SWITCH
[Symbol: Circuit breaker (rating and number of poles as indicated)]		[Symbol: 20A]	[Symbol: 20A contacts]	[Symbol: 20A contacts]	FUSE
[Symbol: Thermal magnetic breaker trip]		[Symbol: 20 3P]	[Symbol: 20 3P contacts]	[Symbol: 20 3P contacts]	CIRCUIT BREAKER (RATING AND NUMBER OF POLES AS INDICATED)
[Symbol: Red indicating light]		[Symbol: RIL]	[Symbol: RIL contacts]	[Symbol: RIL contacts]	RED INDICATING LIGHT
[Symbol: Copper]		[Symbol: CU]	[Symbol: CU contacts]	[Symbol: CU contacts]	COPPER
[Symbol: Motor starter and small motor]		[Symbol: WP]	[Symbol: WP contacts]	[Symbol: WP contacts]	MOTOR STARTER AND SMALL MOTOR
[Symbol: Weatherproof]		[Symbol: EC]	[Symbol: EC contacts]	[Symbol: EC contacts]	WEATHERPROOF
[Symbol: Event counter]		[Symbol: NEUT]	[Symbol: NEUT contacts]	[Symbol: NEUT contacts]	EVENT COUNTER
[Symbol: Neutral]		[Symbol: MS]	[Symbol: MS contacts]	[Symbol: MS contacts]	NEUTRAL
[Symbol: Moisture sensor]		[Symbol: GND]	[Symbol: GND contacts]	[Symbol: GND contacts]	MOISTURE SENSOR
[Symbol: Ground]		[Symbol: UG]	[Symbol: UG contacts]	[Symbol: UG contacts]	GND
[Symbol: Underground]		[Symbol: OL]	[Symbol: OL contacts]	[Symbol: OL contacts]	UNDERGROUND
[Symbol: Overload]		[Symbol: RTM]	[Symbol: RTM contacts]	[Symbol: RTM contacts]	OVERLOAD
[Symbol: Running time meter]		[Symbol: MCC]	[Symbol: MCC contacts]	[Symbol: MCC contacts]	RUNNING TIME METER
[Symbol: Motor control center]		[Symbol: ISR]	[Symbol: ISR contacts]	[Symbol: ISR contacts]	MOTOR CONTROL CENTER
[Symbol: Intrinsically safe relay]		[Symbol: GRS]	[Symbol: GRS contacts]	[Symbol: GRS contacts]	INTRINSICALLY SAFE RELAY
[Symbol: Galvanized rigid steel]					GALVANIZED RIGID STEEL

DETAILED SITE PLAN

SCALE: 1" = 5'-0"

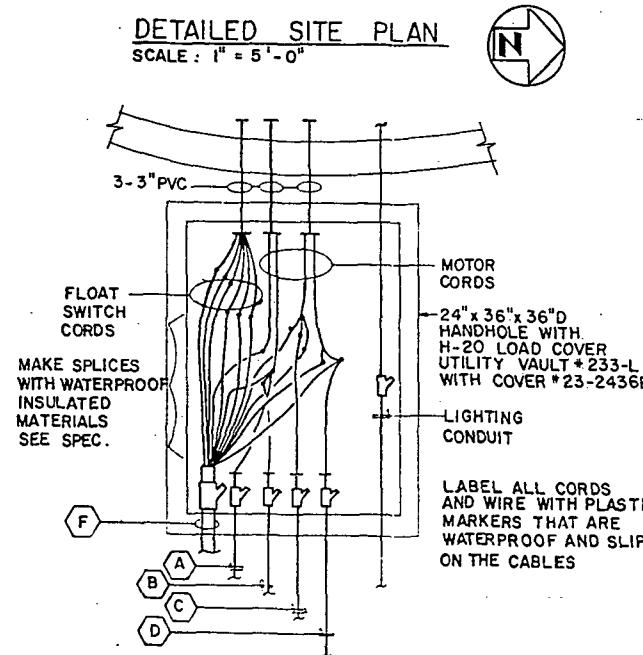


SITE PLAN

SCALE: 1" = 20'-0"

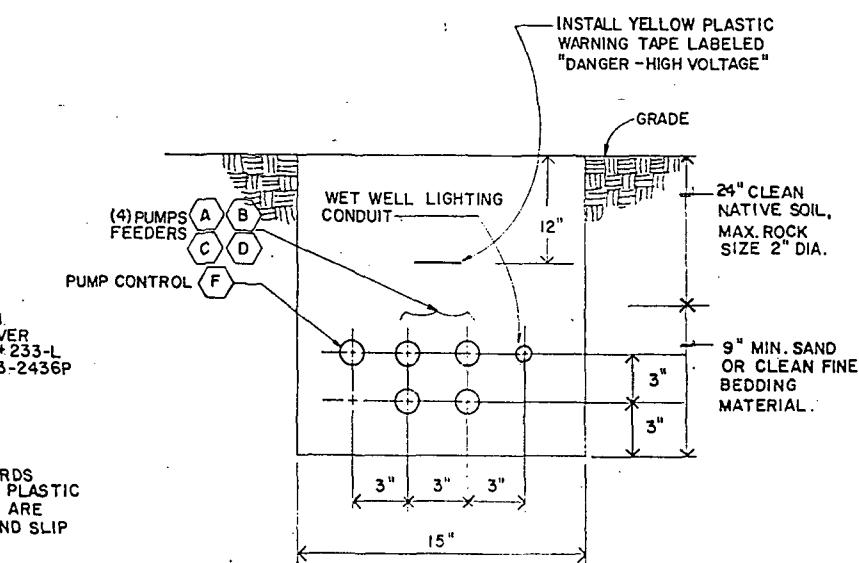


SOUTH  
248TH  
STREET



HANDHOLE CONDUIT & WIRE DETAIL

N.T.S.



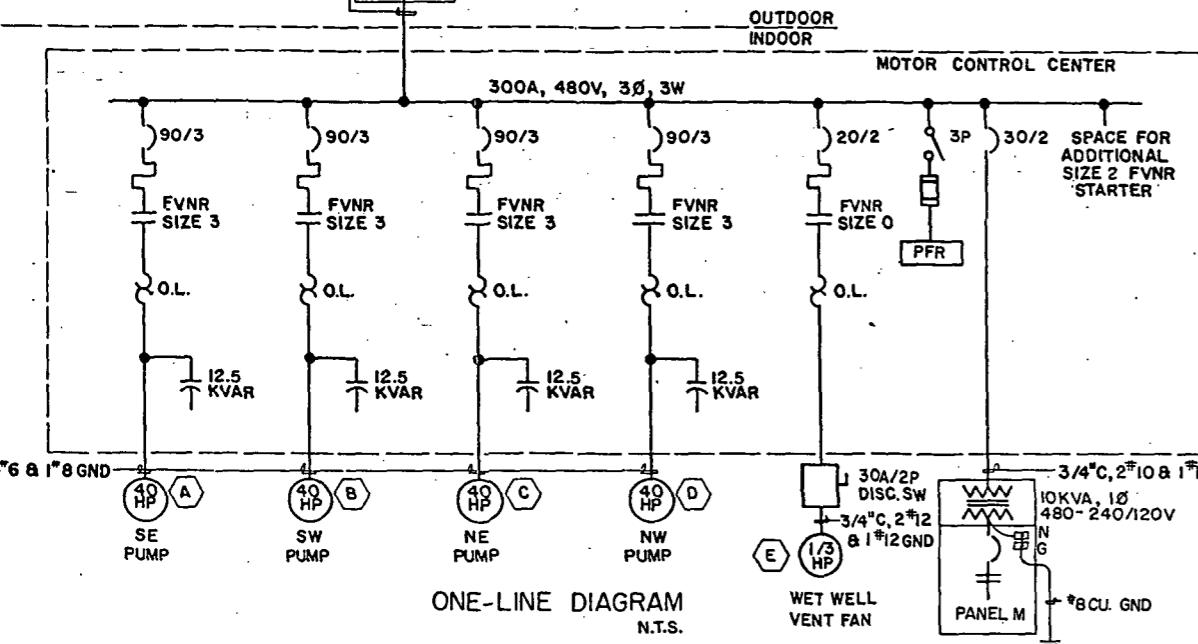
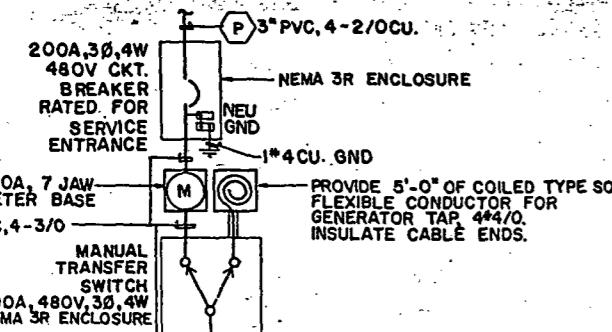
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N.T.S.

SECTION B-B  
N.T.S.

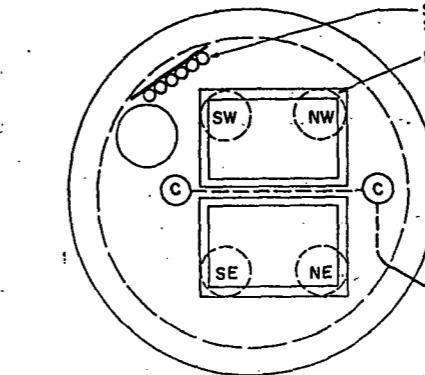
Midway Landfill Closure

East I-5 Pump Station

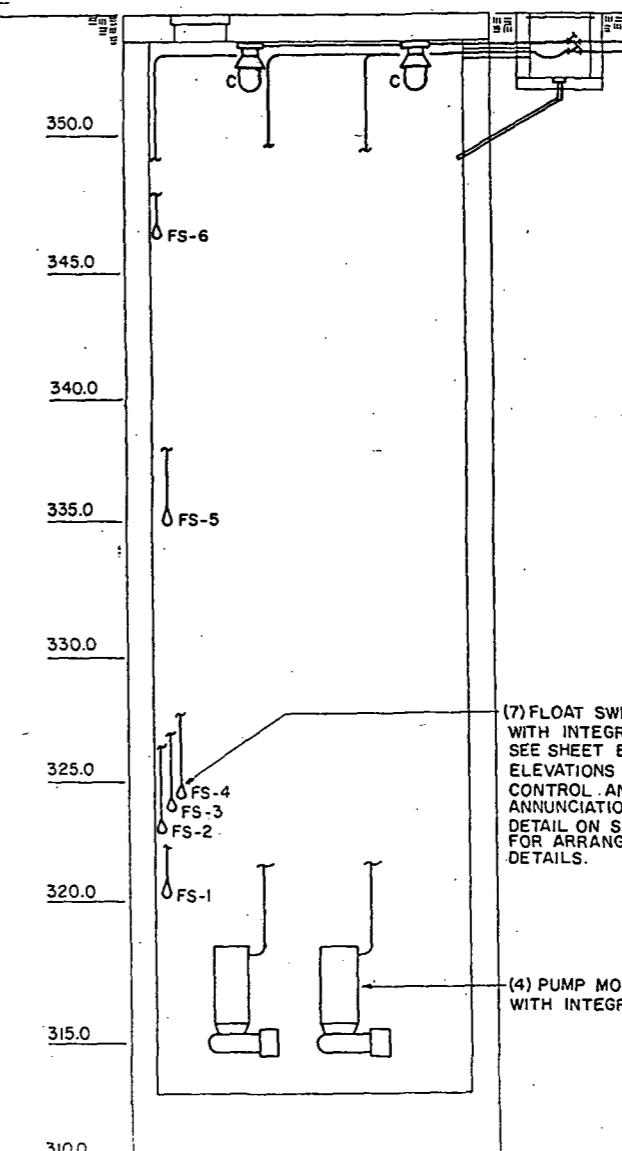
PC S1239A  
OB R/W S1239B  
9 CO S1239C  
VAULT PLAN NO 777-422  
SHEET 15 OF 21



Fixture Schedule		
A	INDUSTRIAL CHAIN HUNG 4 FOOT FLUORESCENT FIXTURES LITHONIA AF240-PO-I20	2-F40RS
B	VANDAL RESISTANT INCANDESCENT WALL MOUNTED FIXTURE KENALL 3663	100W A-LAMP
C	CLASS I GROUP D EXPLOSION PROOF INCANDESCENT FIXTURE APPLETION AAU-15N WITH 3/4" HUBS CAT. AC1575	150W 130V A-LAMP
D	WALL MOUNTED EMERGENCY LIGHTING FIXTURE W/BATTERY PACK	2-HEAD



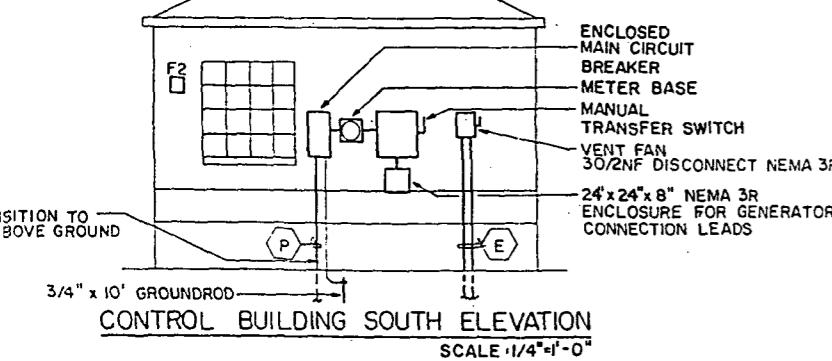
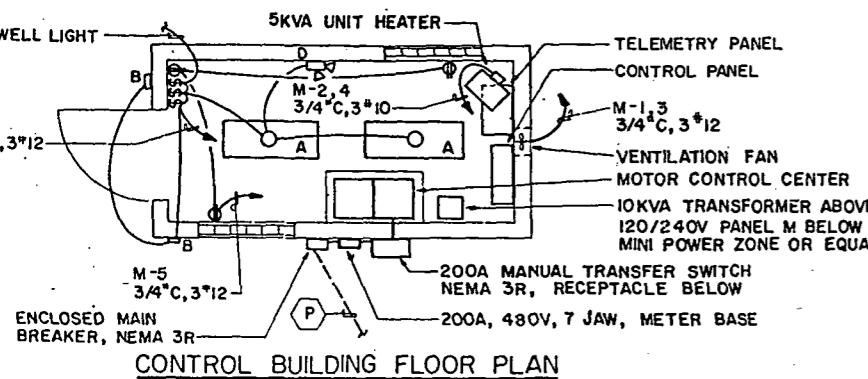
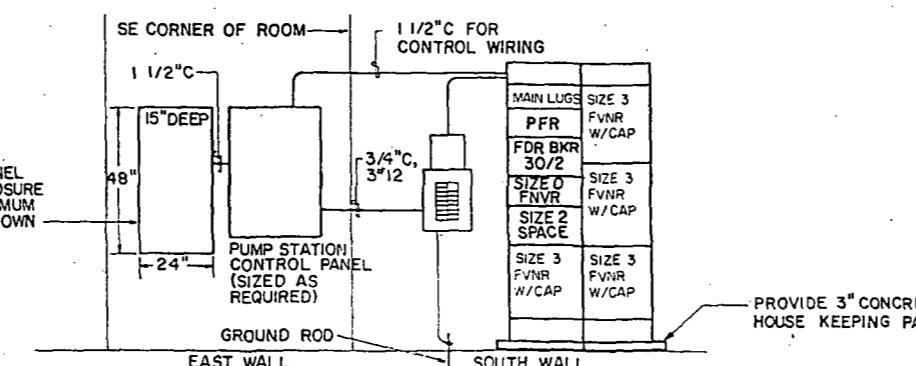
WET WELL PLAN N



WET WELL ELEVATION

EQUIPMENT ELEVATIONS-INTERIOR

SCALE: 3/8"=1'-0"



Rix, Inc.

13020 Northup Way  
Bellevue, Washington 98005  
(206) 455-2550

100 Center Way  
Portland, Oregon 97218  
(503) 256-5444

CASNE ENGINEERING, INC.  
PO BOX 7207 BELLEVUE WA 98008 (206) 744-4232

APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON 5/26/89  
ATTEST: *Barbara J. Johnson*  
EXECUTIVE DIRECTOR  
PROJECT NO. 5/26/89

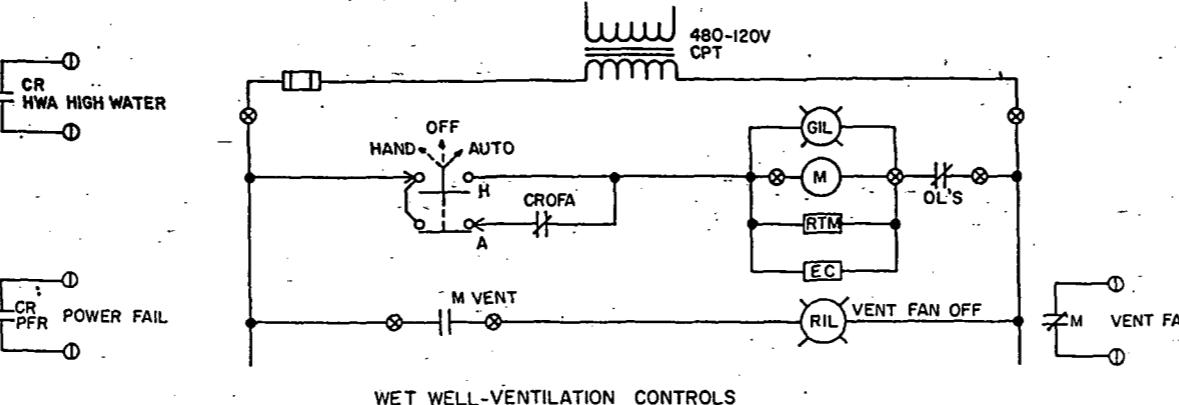
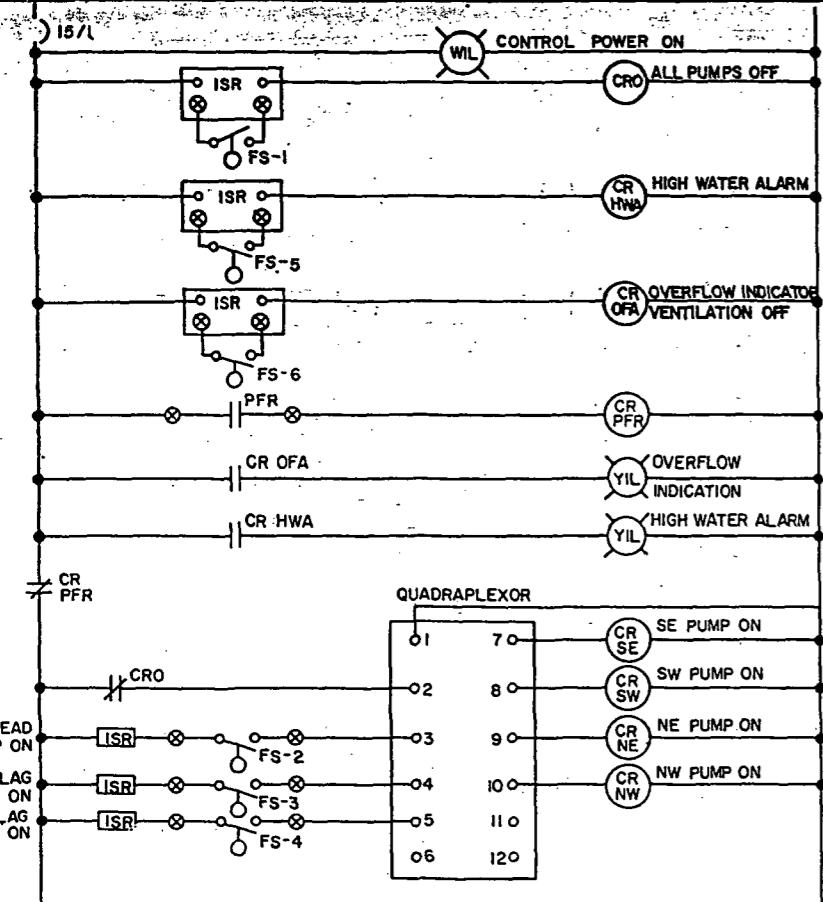
NAME OR INITIALS AND DATE  
DESIGNED KLA 2/16/89  
CHECKED RAS 3/28/89  
DRAWN SAS 2/7/89  
CHECKED KLA 2/23/89  
DESIGN REVIEW RAS 3/15/89  
REVIEWED 3/15/89  
RECEIVED *Dean J. Johnson* 5/21/89  
REVISED AS BUILT H.T. 12-06-90  
All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Sheet Drawings.

REGISTERED PROFESSIONAL ENGINEER  
STATE OF WASHINGTON  
PC S12345  
R/W S12345  
CO S12345  
VAULT PLAN NO. 777-422  
SHEET 2G CF 2

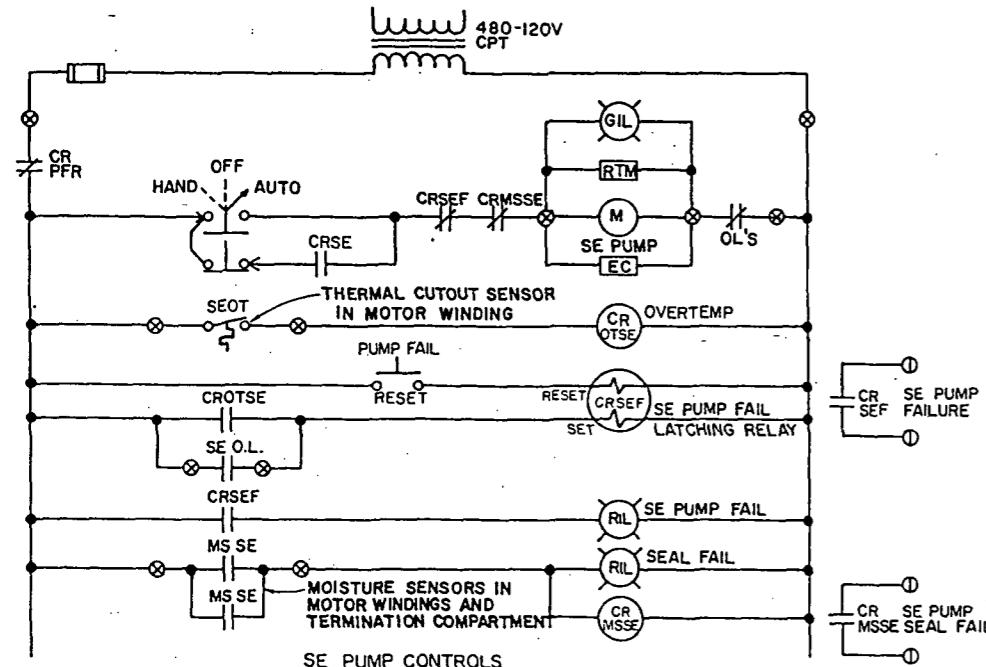
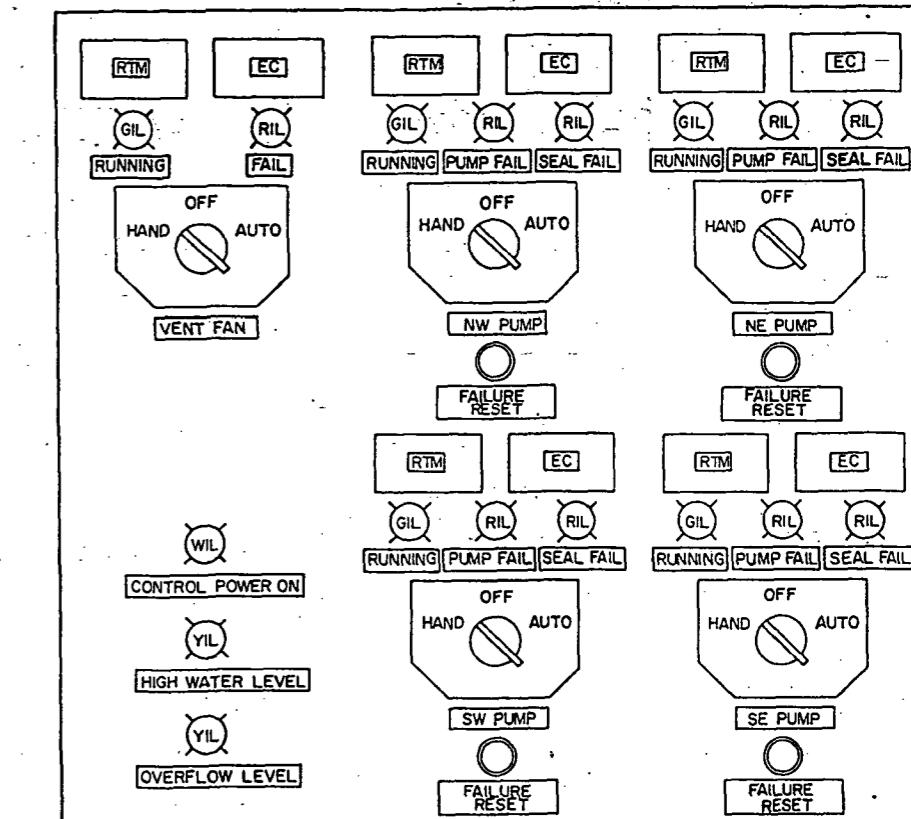
THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO.  
FUND:  
SCALE:  
APPROVED  
INSPECTOR'S BOOK

Midway Landfill Closure  
East I-5 Pump Station

PC S12345  
R/W S12345  
CO S12345  
VAULT PLAN NO. 777-422  
SHEET 2G CF 2



(x) TERMINALS LEAVING THE CONTROL PANEL FOR FIELD  
(①) TERMINALS FOR CONNECTION OF TELEMETRY



PUMP STATION CONTROL PANEL - ELEVATION  
N.T.S.

"AS BUILT" PER PLAN EXCEPT AS NOTED

Panel Logic Diagrams And Elevation

trix, Inc.  
P.O. Box 460  
Bellevue, Washington 98005  
U.S.A.  
206-635-5128  
Auto Center Way  
Bellevue, Washington 98005  
Portland, Oregon 97218  
503-256-5444

**CASNE ENGINEERING, INC.**  
PO BOX 7207 BELLEVUE, WA 98008 (206) 746-4222

APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE, WASHINGTON  
ATTEST:  
*R.P. DeGraaf*  
Chairman  
Executive Director  
PROJECT NO. S/16/89

NAME OR INITIALS AND DATE  
DESIGNED KLA 2/15/89  
CHECKED RAS 3/28/89  
DRAWN SAS 2/17/89  
TRAN. S.V.C. CONST. PROJ. MGR CAP. 1989  
CHECKED KLA 2/23/89  
RECEIVED Drawing C-14, 3/27/89  
DESIGN REVIEW RAS 3/15/89  
REVISED AS BUILT H.T. 12-02-90

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions

INITIALS AND DATE  
REVIEWED:  
DES. CONST.  
TRANS. S.V.C. PROJ. MGR CAP. 1989  
RECEIVED Drawing C-14, 3/27/89  
3/28/89



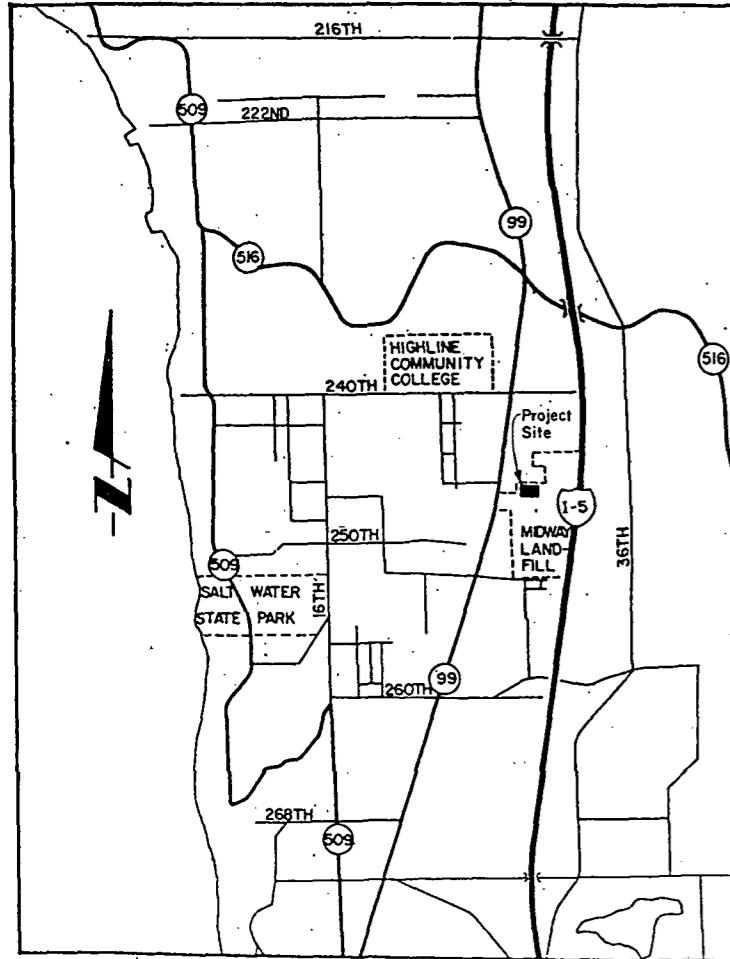
THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. APPROVED  
FUND: INSPECTOR'S BOOK  
SCALE:

Midway Landfill Closure

East I-5 Pump Station

O. PC S1239-1  
R/W S1239-2  
CO S1239-3  
VAULT PLAN NO 777-422  
SHEET 21 OF 12

# MIDWAY LANDFILL GAS MIGRATION CONTROL SYSTEM BLOWER/FLARE FACILITY



VICINITY MAP

## LEGEND

Piping - Above Grade
Piping - Embedded or Buried
Ball Valve
Butterfly Valve
CD Condensate Drain
Flexible Connector
Pipe Hanger
Pipe Support
PP Pressure Port
VP Vacuum Port
Pressure Gauge with Diaphragm Isolator
Roadway Area Mineral Aggregate Type I
Mineral Aggregate Type 13
Concrete
Manhole
Permanent Utility Easement

## LIST OF ABBREVIATIONS

Piping Line	Process Line
Piping - Embedded or Buried	Electrical Line
Ball Valve	Valve Motor Operator (Fail Closed)
Butterfly Valve	Wye Strainer
CD Condensate Drain	Gate Valve
Flexible Connector	Butterfly Valve
Pipe Hanger	Ball Valve
Pipe Support	Check Valve
PP Pressure Port	Tree
VP Vacuum Port	Fence
Pressure Gauge with Diaphragm Isolator	Existing Contours
Roadway Area Mineral Aggregate Type I	New Contours
Mineral Aggregate Type 13	Limits of Construction
Concrete	Soil Boring
Manhole	Overhead Power
Permanent Utility Easement	Pipe Storm Drain
	Electrical Conduit (Buried)
	SSS Sanitary Side Sewer

## SHEET NO.

## INDEX TO DRAWINGS

SHEET NO.	TITLE
1	Cover Sheet
2	Site Plan
3	Pipeline Profiles and Details
4	Equipment Plan
5	Sections and Mechanical Details
6	Mechanical Details
7	Details, SEWER CONNECTIONS
8	Structural Plans and Foundation Details
9	Structural-Building Details
10	Roof Framing Plan, Architectural and Mechanical Details
11	Process and Instrumentation Diagram
12	Electrical Plan and One Line Diagram
13	Electrical Plan, Diagrams and Schedule
14	Electrical Control and Alarm
15	Electrical Control Panel and Diagrams



"AS BUILT" PER PLAN EXCEPT AS NOTED

Adv. 6-14-88  
VTP

parametrix, Inc.
13020 Northup Way, Suite 8 Bellevue, Washington 98005 455-2550 377-0014



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SEATTLE WASHINGTON 5/20/1988

ATTEST: *Barbara Laike*  
EXECUTIVE SECRETARY

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DESIGNED RGH 2/88  
CHECKED RVH 2/88  
DRAWN JJM 2/88  
CHECKED BWG 2/88  
DESIGN REVIEW RVH 2/88  
REVIEWED: CONSTR. TRANS. SVC PROJ. MGR LAG 41  
RECEIVED: Diana Gandy 5/18/88  
REVISED AS BUILT H.T. 12.07.90

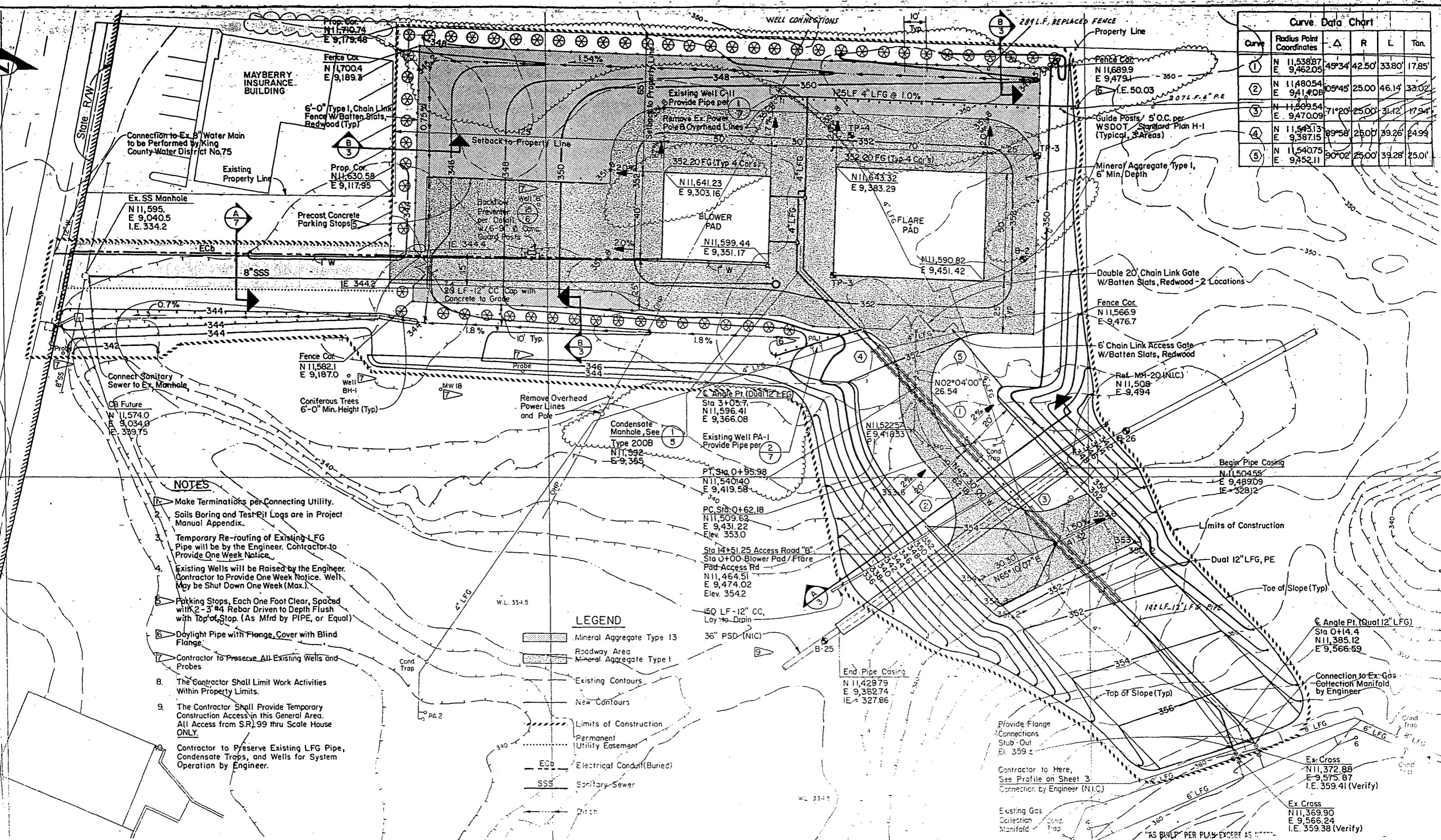
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RECEIVED: Diana Gandy 5/18/88  
REVISED AS BUILT H.T. 12.07.90

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. 112413 APPROVED  
FUND: SWF  
SCALE: No Scale  
INSPECTOR'S BOOK

MIDWAY LANDFILL GAS MIGRATION CONTROL  
SYSTEM BLOWER/FLARE FACILITY  
COVER SHEET

PC S 123-2  
R/W _____  
co S 123-3  
VAULT PLAN NO.  
870-175  
SHEET 1 CF 15

Curve Data Chart					
Curve	Radius Point Coordinates	Δ	R	L	Tan.
①	N 11,538.87 E 9,462.05	45°34'	42.50'	33.80'	17.85'
②	N 11,480.54 E 9,414.08	50°45'	25.00'	46.14'	32.02'
③	N 11,509.54 E 9,470.09	71°20'	25.00'	31.12'	17.94'
④	N 11,543.13 E 9,387.15	89°58'	25.00'	39.26'	24.99'
⑤	N 11,540.75 E 9,452.11	90°02'	25.00'	39.28'	25.01'



## NOTES:

This Contractor, and Contractors on Other Contracts, May Use This Area for Work Access.

Support Pipes: 6" Grade with 2x4 Cross Bracing.

Sea Equipment Plan Sheet 4, for 4" LFG Not Shown Here.

Trench Section per Section A Sim and Special Trench Backfill per Detail 3.

Refer to Site Plan, Sheet 2, for Coordination of Both LFG Pipe Bends.

Provide Bends Necessary to Achieve Vertical and Horizontal Alignment.

Connection to Existing Gas Main by Engineer. Provide Flange Spool to Allow Connection for Vert. and Horz. Alignment.

Landfill Grade Before Final Cover PE/PVC Transition with Flange.

Future Access Road B

Blower / Flare Area Access Road

Blower / Flare Pad Area

Under Separate Contract

Guide Posts at 5' O.C. see Sheet 2

Final Grade

See Detail N7

12" Mineral Aggregate Type 24 Under Each Slab

Blower Structure

Top Flange El. 352.67 (Typ.)

12" LFG Vertical Riser, PE - ASTM D 3350

See Detail 1

6" Mineral Aggregate Type 1

Mineral Aggregate Type 17

Existing Grade

See Detail 1

12" Mineral Aggregate Type 17

Embankment Material Aggregate Type 17

Existing Grade

See Detail 1

12" Casing 18" Casing (2)

Future 36" PSD (NIC) See Sheet 2

239' - 12" LFG (2) @ 0.98 %

PE - ASTM D 3350 with Tracer Wire

See Detail 1

12" Casing (2) PE

Sta. 0+89 Begin 18" Casing (2)

Sta. 0+70 90° Bend (2)

Sta. 0+70 90° Bend (2)

Sta. 0+00 Adjust Grade to Match Existing Pipe

IE = 359.45 Ver (y)

Sta. 0+04 Begin LFG Installation Flange Connection

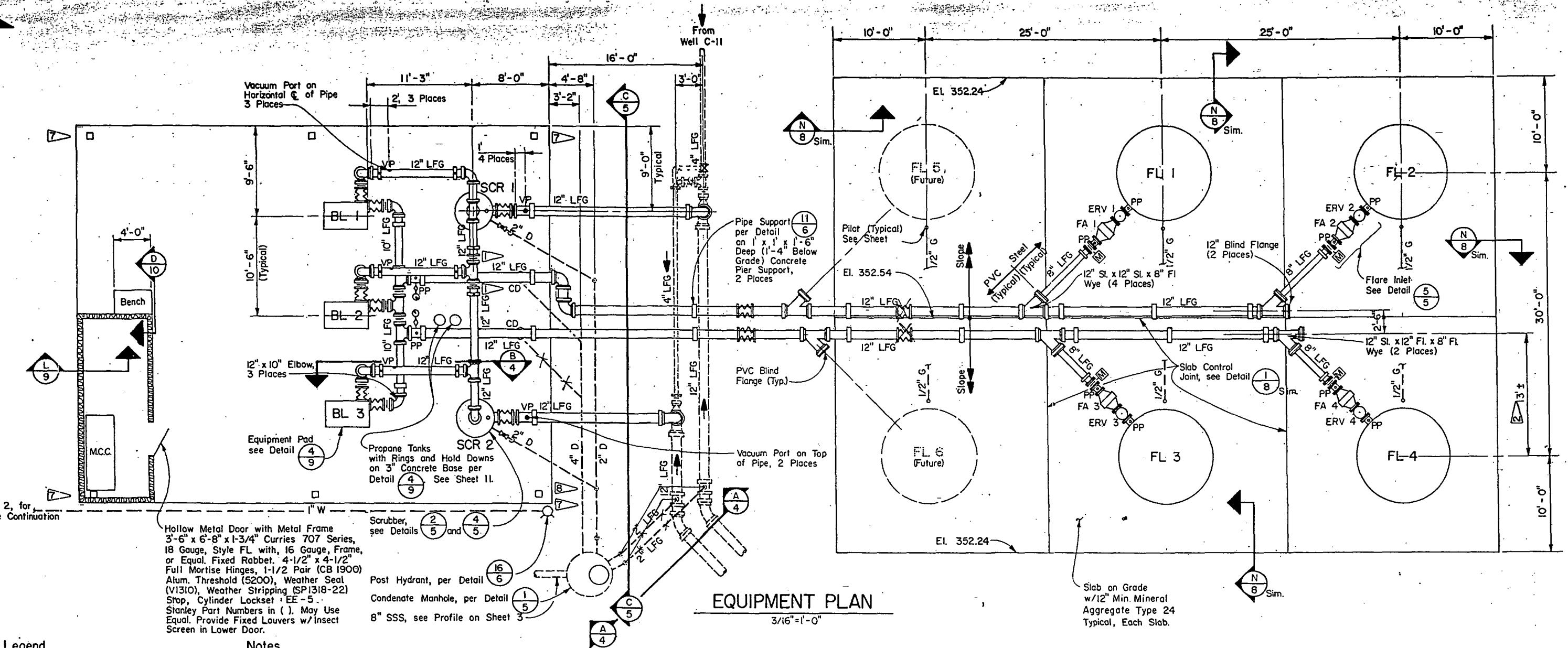
IE = 354.0

Sta. 0+49 Begin 18" Casing (2)

Sta. 1+48 Begin 18" Casing (2)

Sta. 1+48 End 18" Casing (2)

Sta. 1+49 End 18" Casing (2)



SECTION

1/4" = 1' - 0"

Condensate Manhole per Detail 5

IE 340.0 2 Places S=0.02

12" LGF

2-2" LGF S=0.02

IE 346.4

Fitting per Detail 2 Places

2" BFV with 2" □ Nut and Cast Iron Valve Box

Concrete Thrust Block and Encasement

Provide Drop Pipes and Connections to Manhole per Detail 1 5

A 4

SECTION

1/4" = 1' - 0"

10  
6

**SECTION**

B-4

1/4" = 1'-0"

Scrubber

Sway Brace  
(3 Places)

12" LGF

VP

Pipe Support per Detail 11 6

Pipe Hanger per Detail 12 6

Pressure Gauge and Diaphragm Isolator per Detail 7 7

Concrete Base per Detail 4 9

"AS BUILT" B&P PLAN EXCERPT AS NOTED

**ametrix, Inc.**

---

ica Bldg 460 13202 Northup Way, Suite 8 4970 Auto Center Way  
L. Washington 98020 Bellevue, Washington 98005 Bremerton, Washington 98312  
0 863-5128 455-2550 3770014



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ATTEST:  
Barbara J. Par

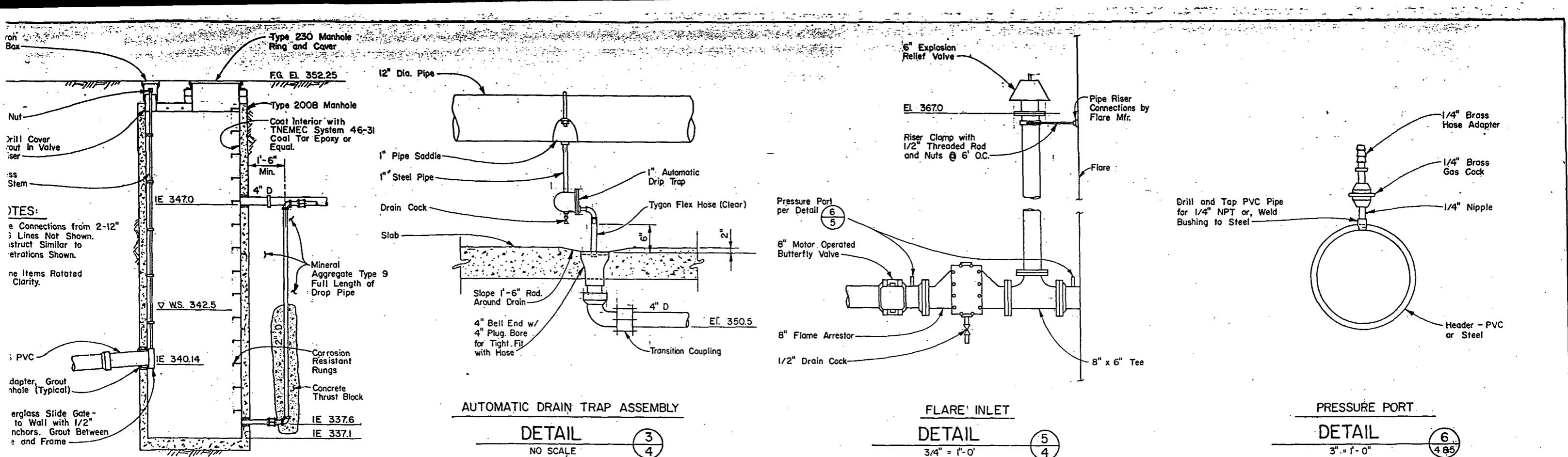
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DESIGNED	RGH	2/88
CHECKED	RVH	2/88
DRAWN	JJM	2/88
CHECKED	BWG	2/88
DESIGN REVIEW	RVH	2/88
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**THE CITY OF SEATTLE  
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MIDWAY LANDFILL GAS MIGRATION CONTROL  
SYSTEM BLOWER/FLARE FACILITY

EQUIPMENT PLAN

PC S1239 A  
R/W  
CO S1239 C  
AULT PLAN NO  
870-175  
HEET 4 CF 15



### AUTOMATIC DRAIN TRAP ASSEMBLY

#### DETAIL

NO SCALE



NOTE:  
Mfr. Design for 100" H₂O Vacuum.

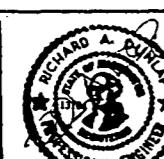
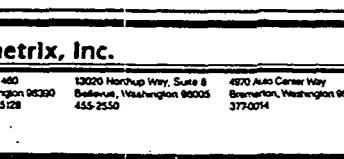
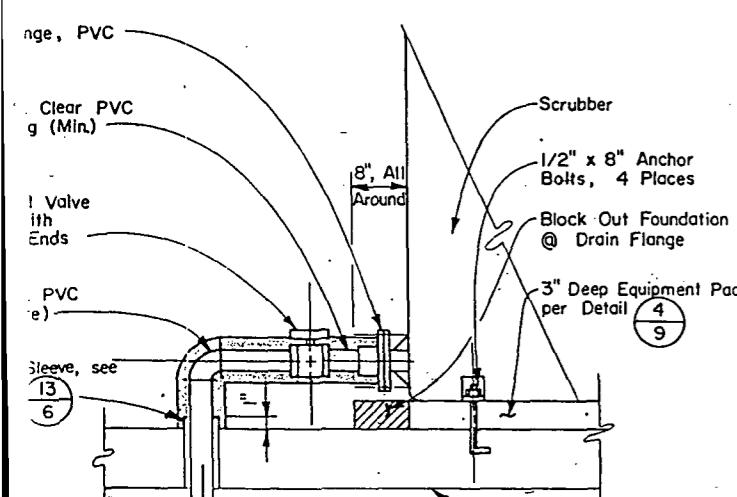
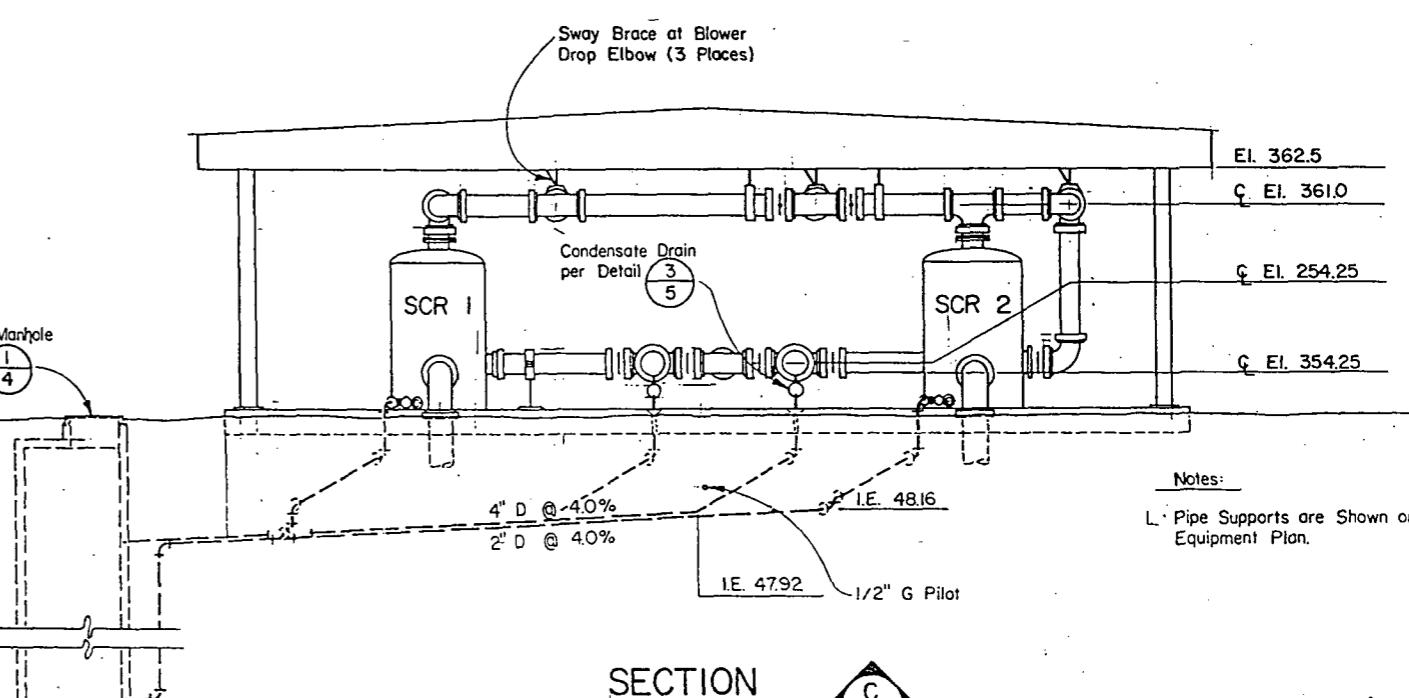
#### FLARE INLET

#### DETAIL

3/4" = 1"-0"

#### DETAIL

5 4



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EXECUTIVE SECRETARY

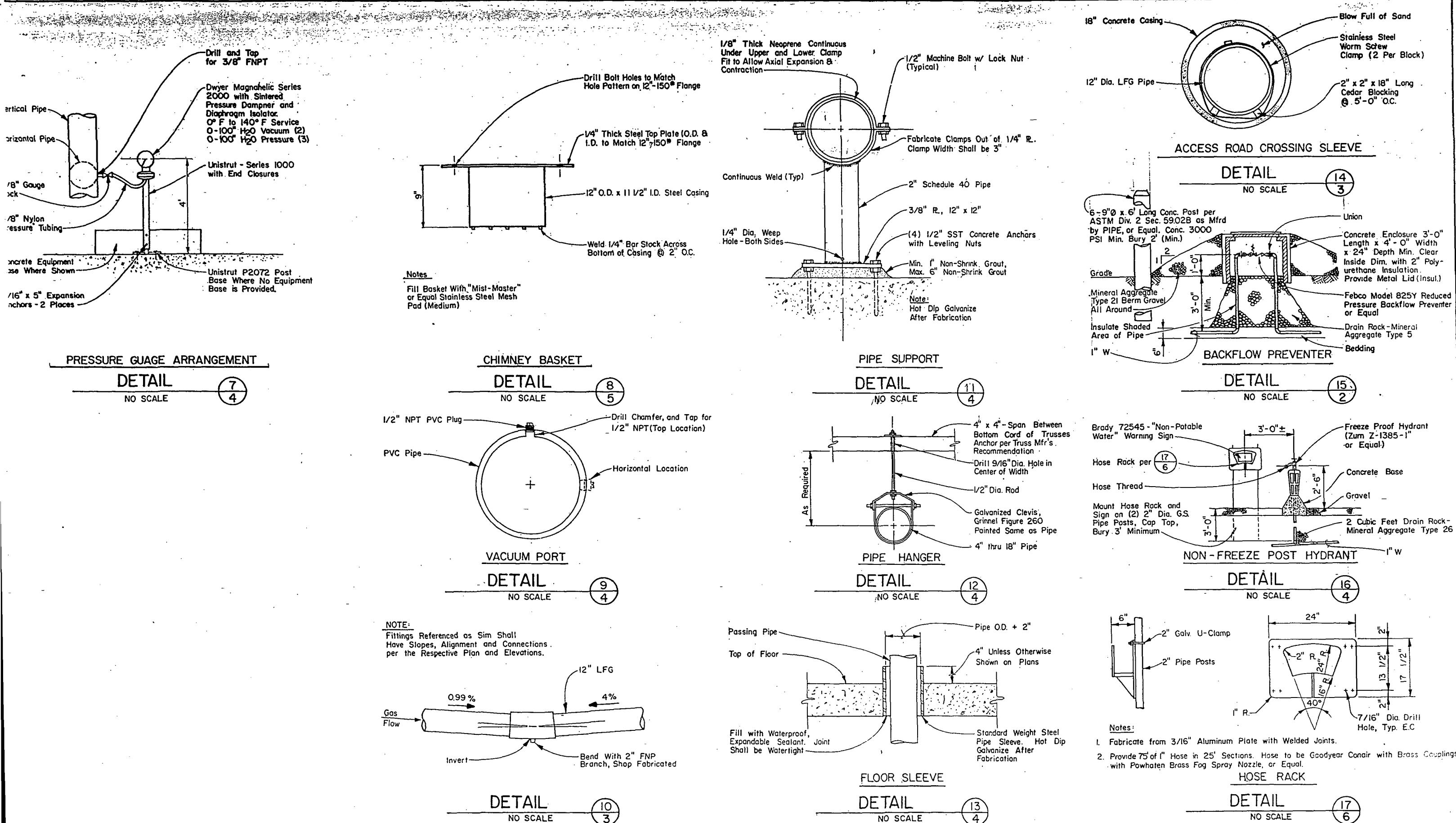
PROJECT NO. 6/20/1988  
DRAWN BY JJM 2/88  
CHECKED BY RVH 2/88  
DESIGNED BY RGH 2/88  
TRANS. SVC. CONST. PROJ. MGR. LEAD SP. PROJ. MGR.  
RECEIVED DESIGNER DATE FILED BY  
REvised AS BUILT H.T. 12.07.90  
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ORDINANCE NO. 112413 APPROVED  
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SCALE: As Noted  
INSPECTOR'S BOOK

MIDWAY LANDFILL GAS MIGRATION CONTROL  
SYSTEM BLOWER/FLARE FACILITY  
SECTIONS AND  
MECHANICAL DETAILS

PC S1239A  
R/V  
CO S1239C  
VAULT PLAN NO. 870-175  
SHEET 5 OF 15



**ametrix, Inc.**

Ice Box 460  
c Washington 80300  
10 acs-3128

13020 Nordup Way, Suite 8  
Bellevue, Washington 98005  
425-2550

470 Auto Center Way  
Bremerton, Washington 88312  
377-0014



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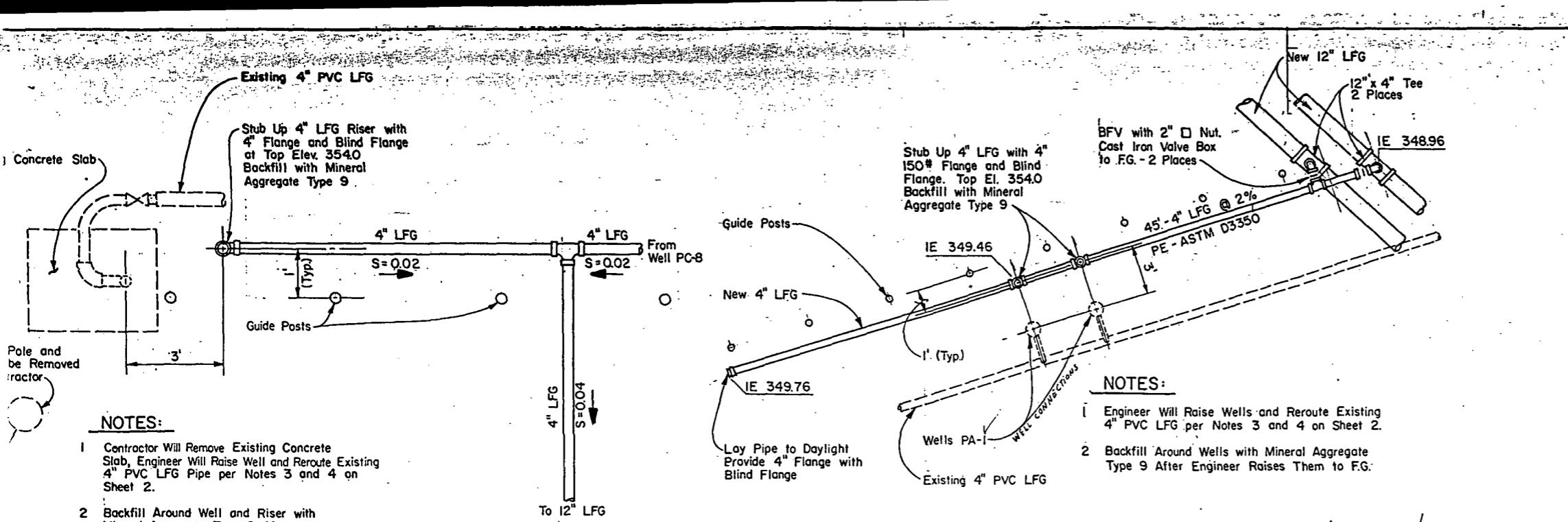
ADVERTISING PUBLIC WORKS	NAME OR INITIALS
\$130 1986	DEIGNED RGH CHECKED RVH
<i>Signatures</i>	DRAWN JJM CHECKED BWG
Chairman	DESIGN REVIEW RVH
	All work done in accordance

AND DATE		INITIALS AND DATE	
2/88	REVIEWED:		
2/88	DES.	CONST.	
2/88	TRANS. SVC.	PROJ. MGR./LEADER	
2/88	RECEIVED	Dean Gallo 5/18/94	
2/88	REVISED AS BUILT	B.L. 12-07-90	
with the City of Seattle Standard Plans and Specifications			

**THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING**

1

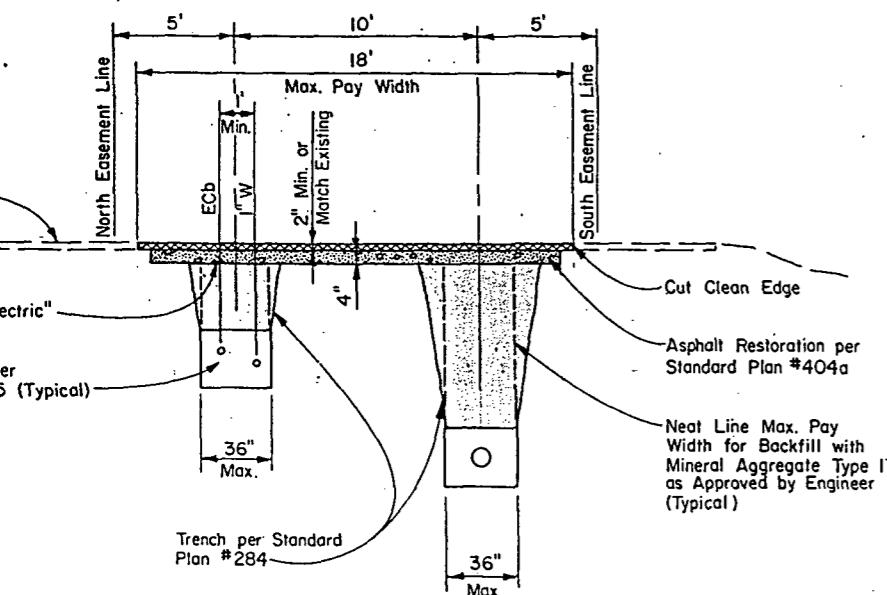
MIDWAY LANDFILL GAS MIGRATION CONTROL SYSTEM BLOWER/FLARE FACILITY		JOB NO. PC S1239 A R/W CO S1239 C
MECHANICAL DETAILS		Vault Plan No. 870-175
		SHEET 6 OF 15



### WELL C-II CONNECTION

#### DETAIL

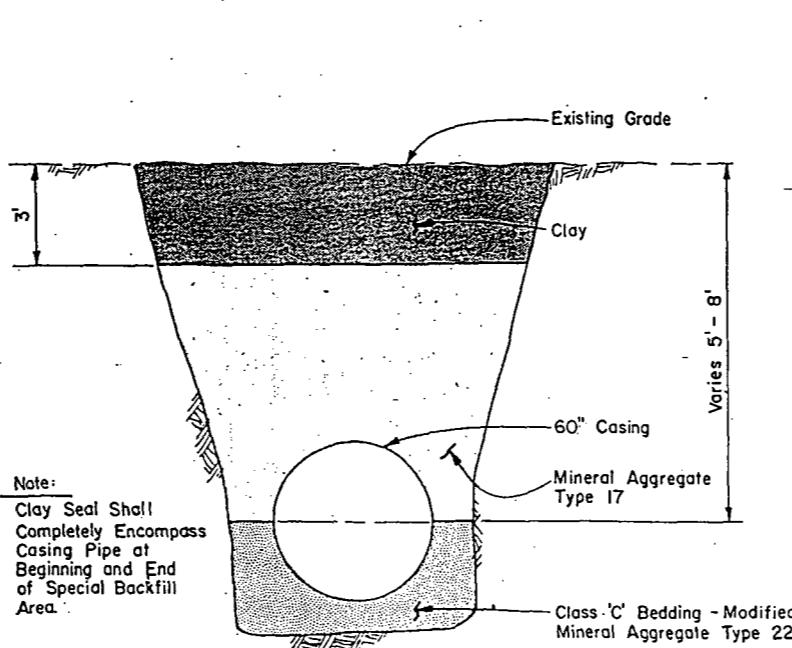
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### WELL PA-1 CONNECTION

#### DETAIL

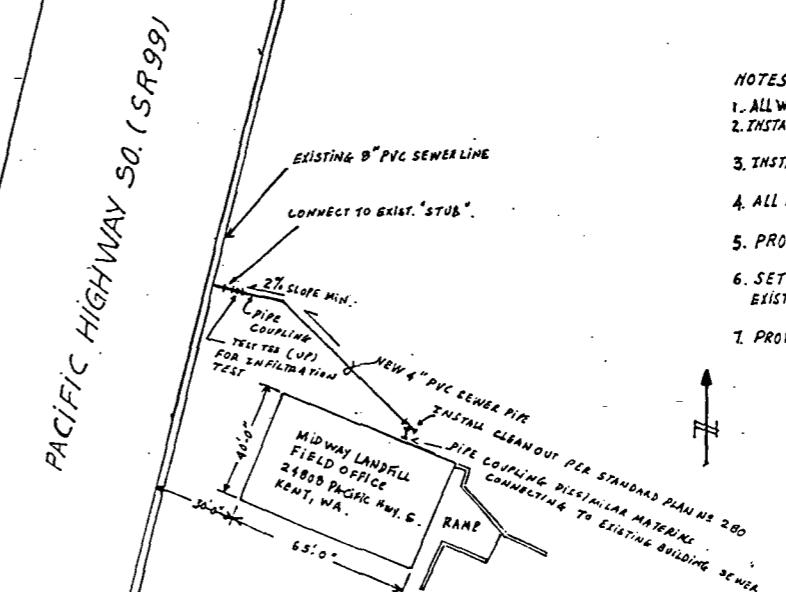
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### SPECIAL PIPE TRENCH BACKFILL

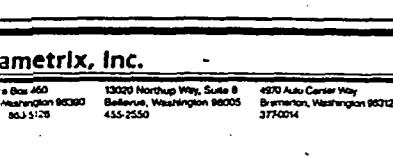
#### DETAIL

NO SCALE



### MIDWAY LAND FIELD OFFICE SEWER CONNECTION

- NOTES:**
- ALL WORK IN ACCORDANCE WITH CITY OF SEATTLE SECTION 7.17.55
  - INSTALL 4" PVC SEWER PIPE - ASTM D3034 SDR35 CP ASTM F787
  - INSTALL PVC JOINTS ASTM D3212, RESTRAINED GASKETS ASTM A47
  - ALL FITTINGS - PVC, EXCEPT DISSIMILAR PIPE CONNECTOR AT BUILDING
  - PROVIDE 18" MIN. COVER ON SIDE SEWER AND 6'C' MIN. COVER IN HIGHWAY 99 R/W
  - SET PIPE WITH MIN. 2% SLOPE; FIELD VERIFY I.E. OF EXISTING DEMOLINED SEWER DISTRICT "STUB".
  - PROVIDE "AS BUILT" RECORDS.



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Chairman  
EXECUTIVE SECRETARY  
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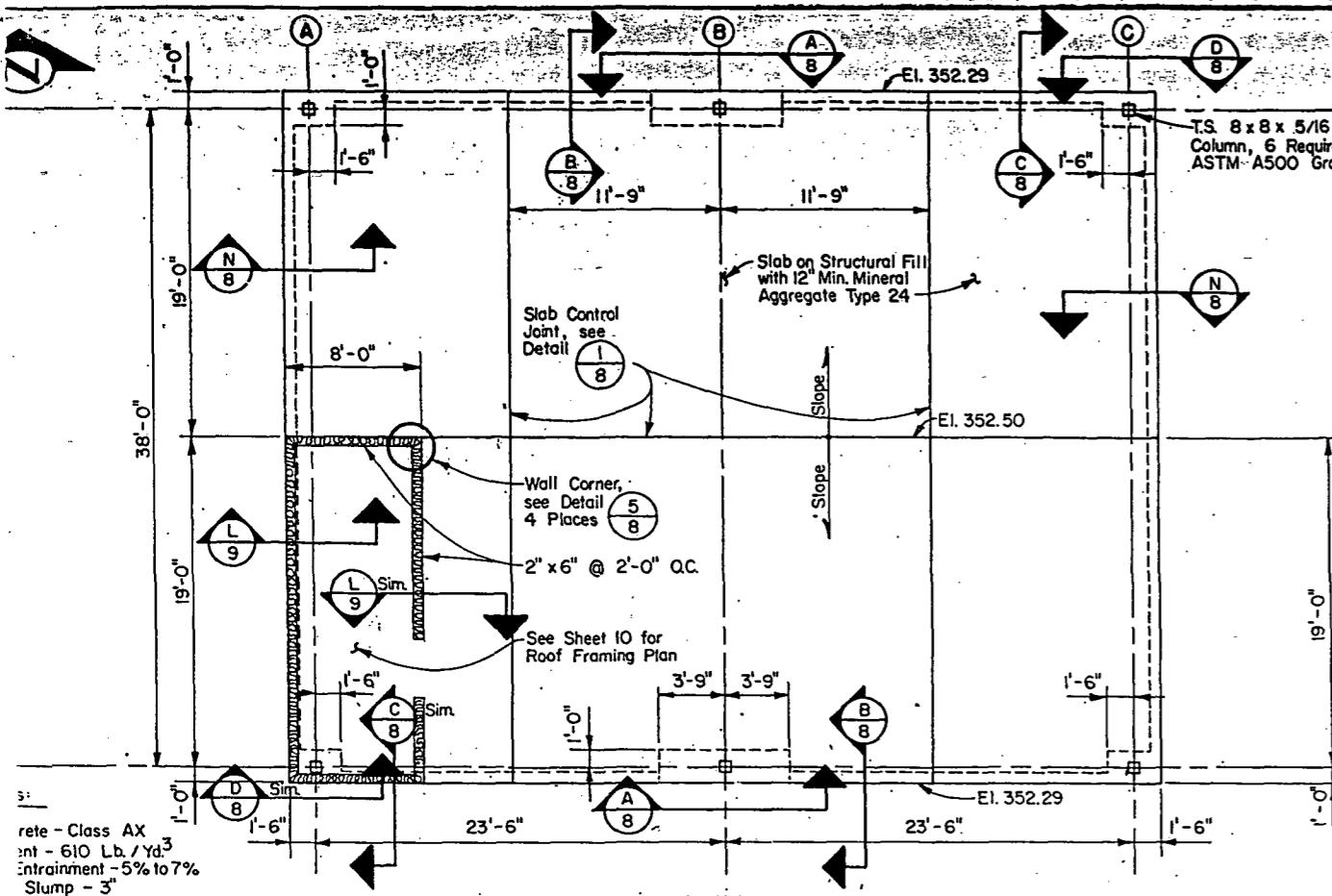
NAME OR INITIALS AND DATE  
DESIGNED RGH 2/88  
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DRAWN JJM 2/88  
CHECKED BWG 2/88  
RECEIVED *John Zink* 1988  
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DES. CONST.  
TRANS. SVC. PROJ. MGR/DES. & M.  
INSPECTOR'S BOOK

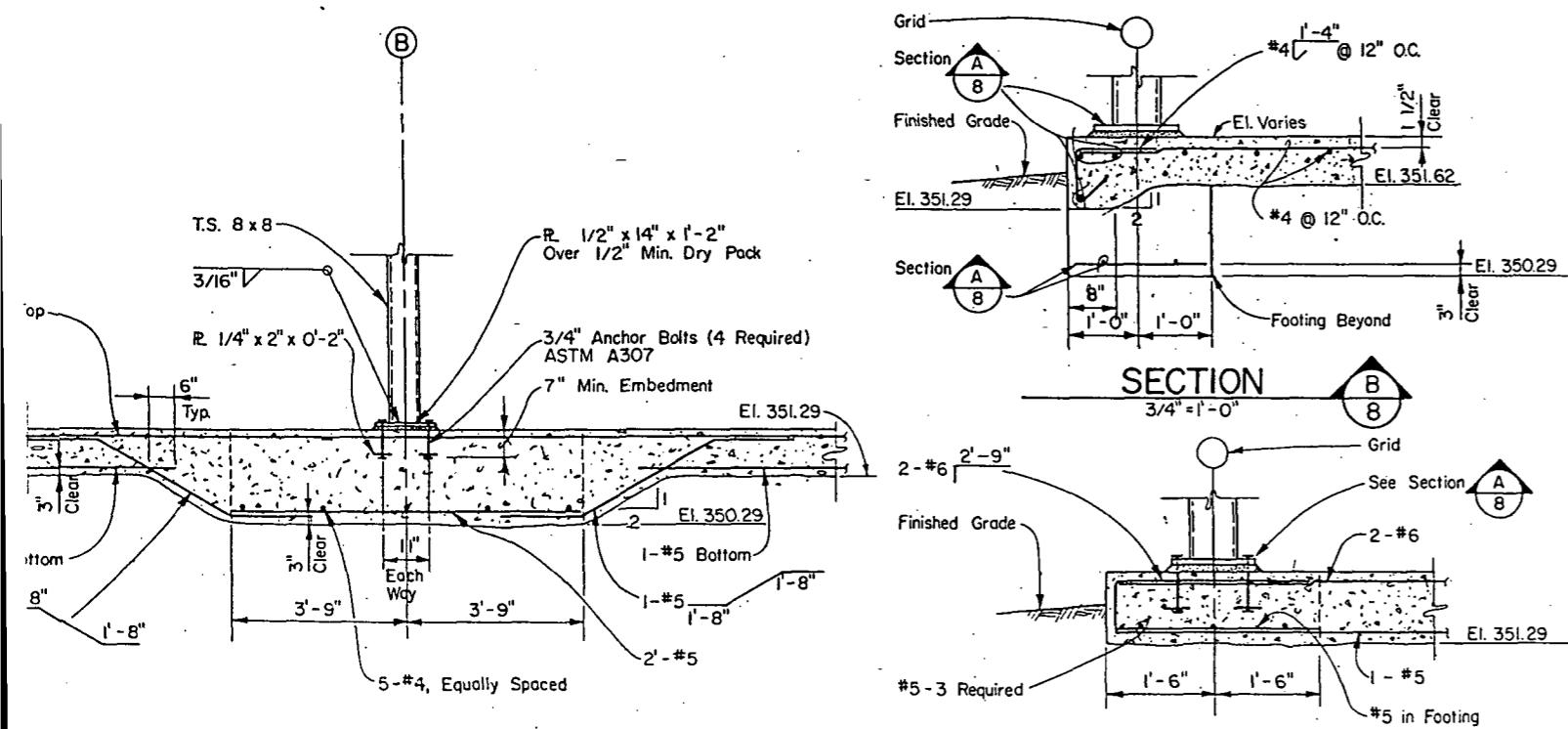
THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. 112413 APPROVED  
FUND: SWF  
SCALE: AS Noted

MIDWAY LANDFILL GAS MIGRATION CONTROL  
SYSTEM BLOWER/FLARE FACILITY  
DETAILS

PC_S1239-A  
R/W  
CO. S1239-C  
VAULT PLAN NO  
870-175  
SHEET 7 OF 15



## FOUNDATION PLAN



## SECTION

1/2" = 1"



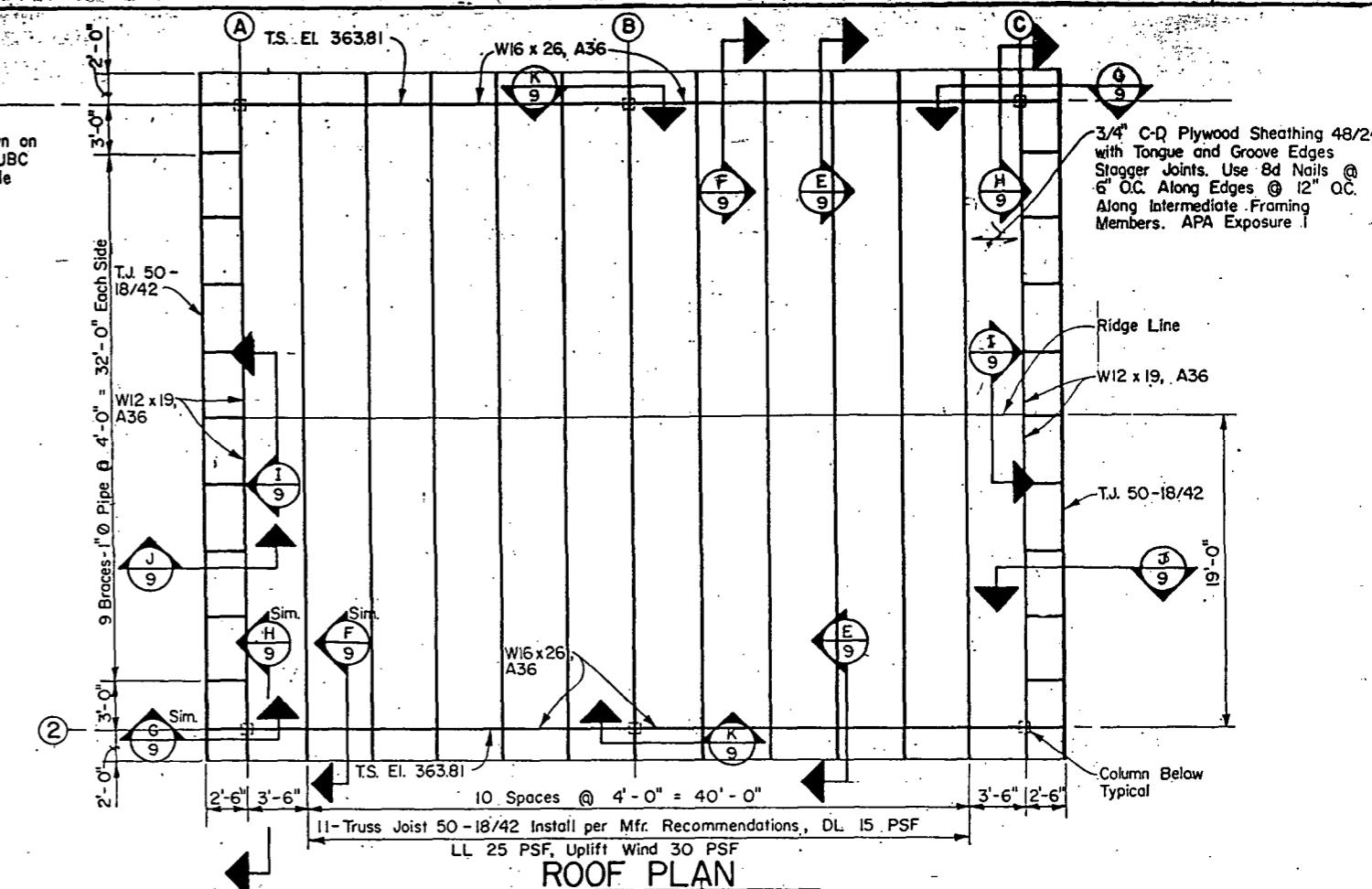
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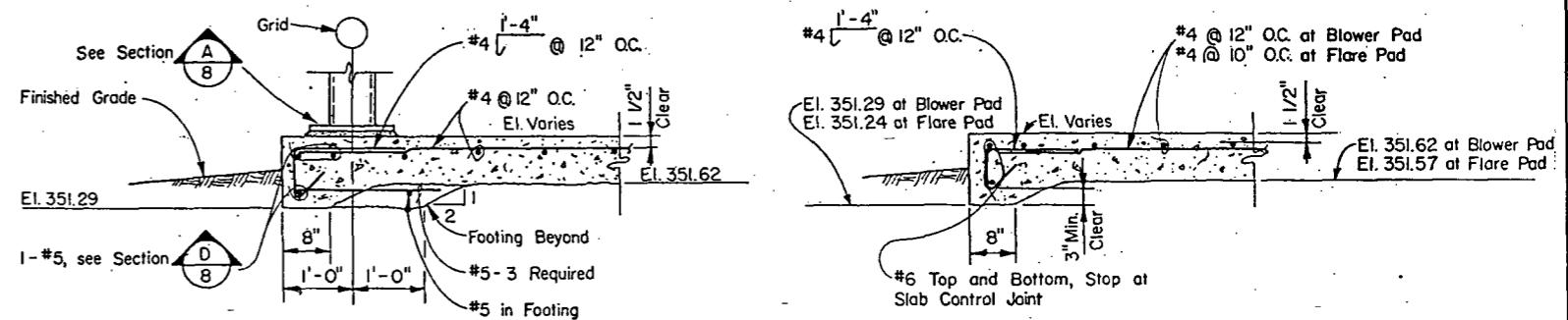
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- L For Nailing Not Shown on Drawings Use 1985 UBC Nailing Schedule Table No. 25Q.

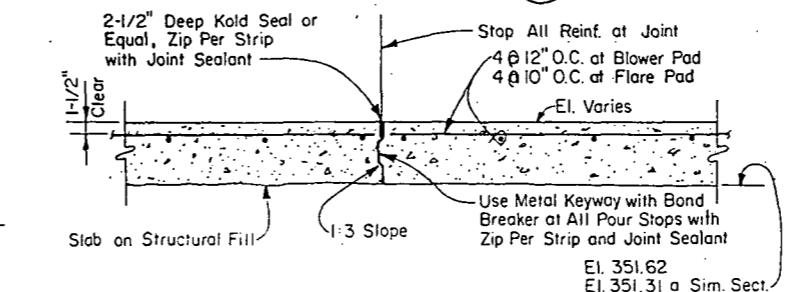
**2 Use DFL #2, Typical  
All Sawn Lumber.**



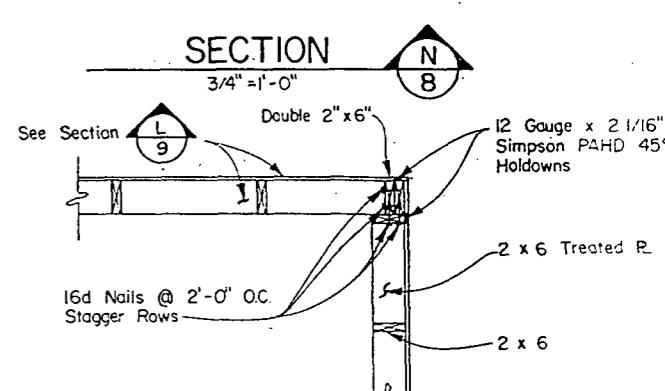
## ROOF PLAN



## SECTION



### SLAB CONTROL JOINT



WALL CORNER

~~185 BILLET PER PLAN EXCEPT AS NOTED~~

**DETAIL**

$$T'' = T - O''$$

**ametrix, Inc.**

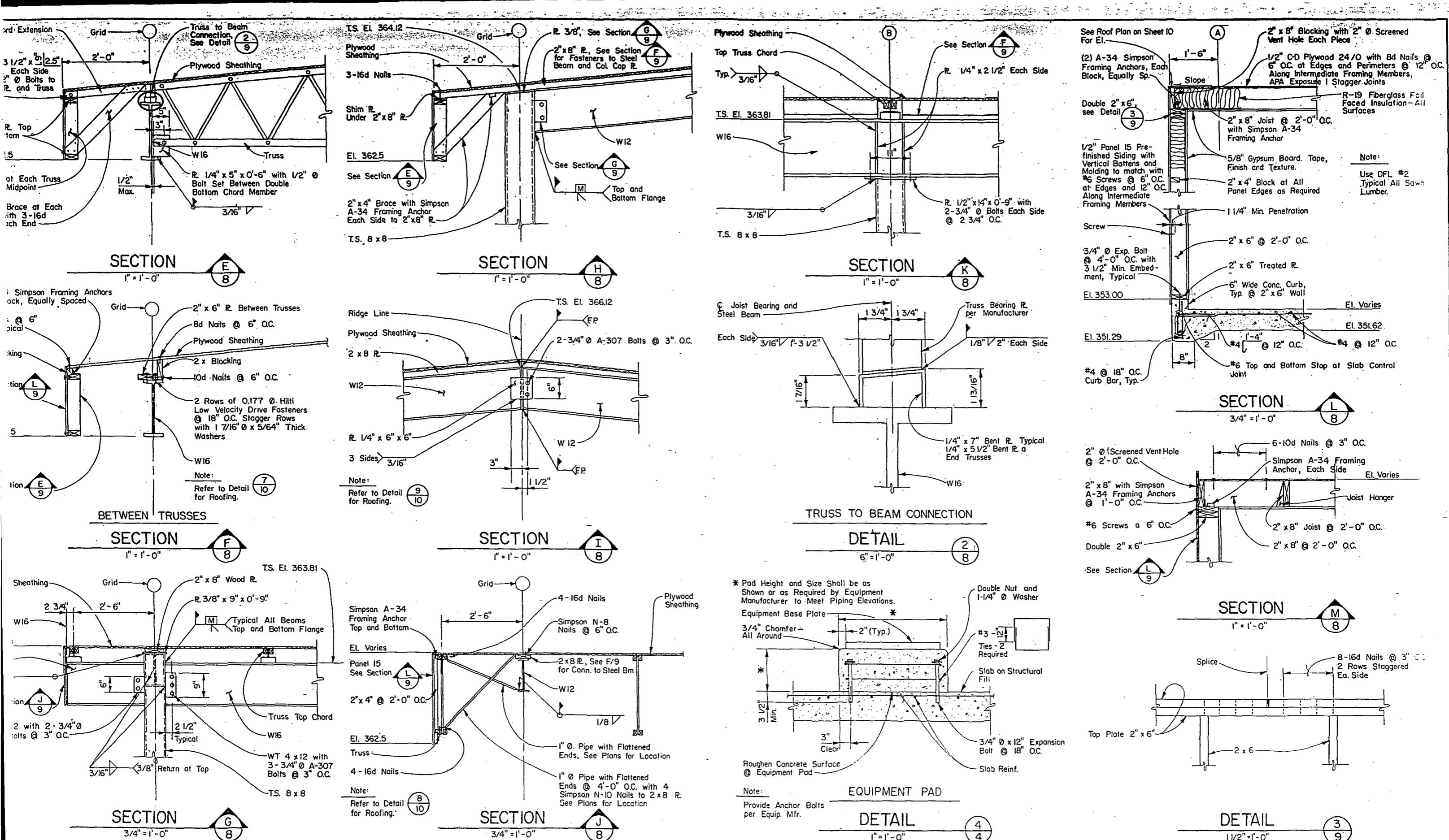
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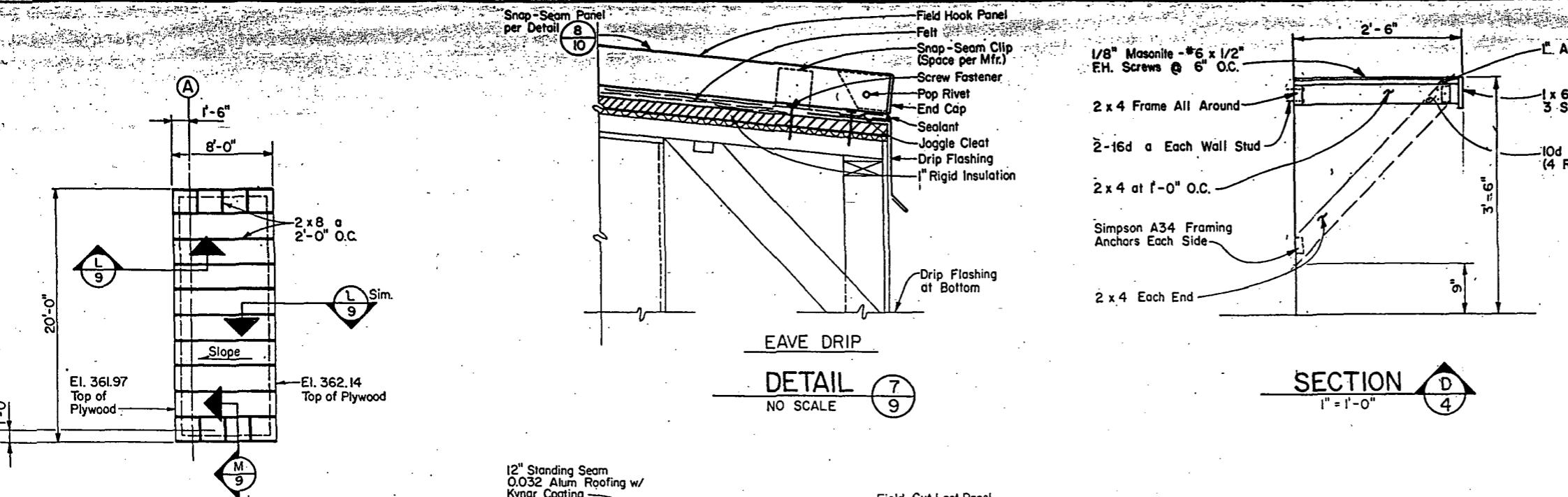
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THE CITY OF SEATTLE  
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MIDWAY LANDFILL GAS MIGRATION CONTROL  
SYSTEM BLOWER/FLARE FACILITY  
**STRUCTURAL PLANS AND  
FOUNDATION DETAILS**

PC S1239.A  
R/W  
CO S1239.C  
VAULT PLAN NO.  
870-175  
SHEET 8 OF 15

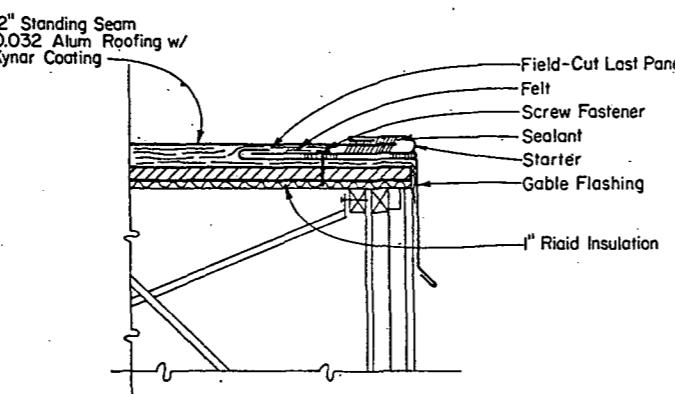




### EQUIPMENT ROOM

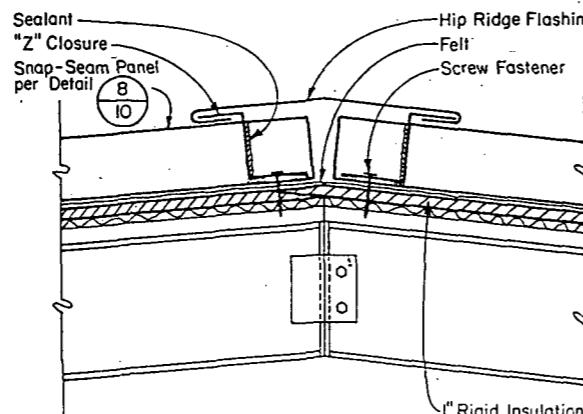
### ROOF FRAMING PLAN

3/16" = 1'-0"



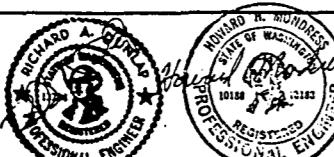
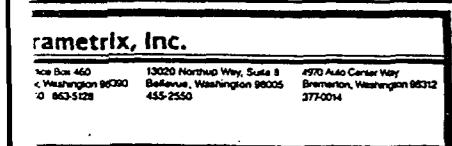
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**DETAIL**  
NO SCALE



**HIP RIDGE**  
**DETAIL**  
NO SCALE

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SEATTLE WASHINGTON 25/20 1988

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DESIGNED RGH 2/88	REVIEWED CONST. PROJ.MGR 10/17/94
CHECKED RVH 2/88	TRANS. SVC.
DRAWN JJM 2/88	RECEIVED Diane Gatz 3/18/94
CHECKED BWG 2/88	REvised AS BUILT H.T. 12.07.90
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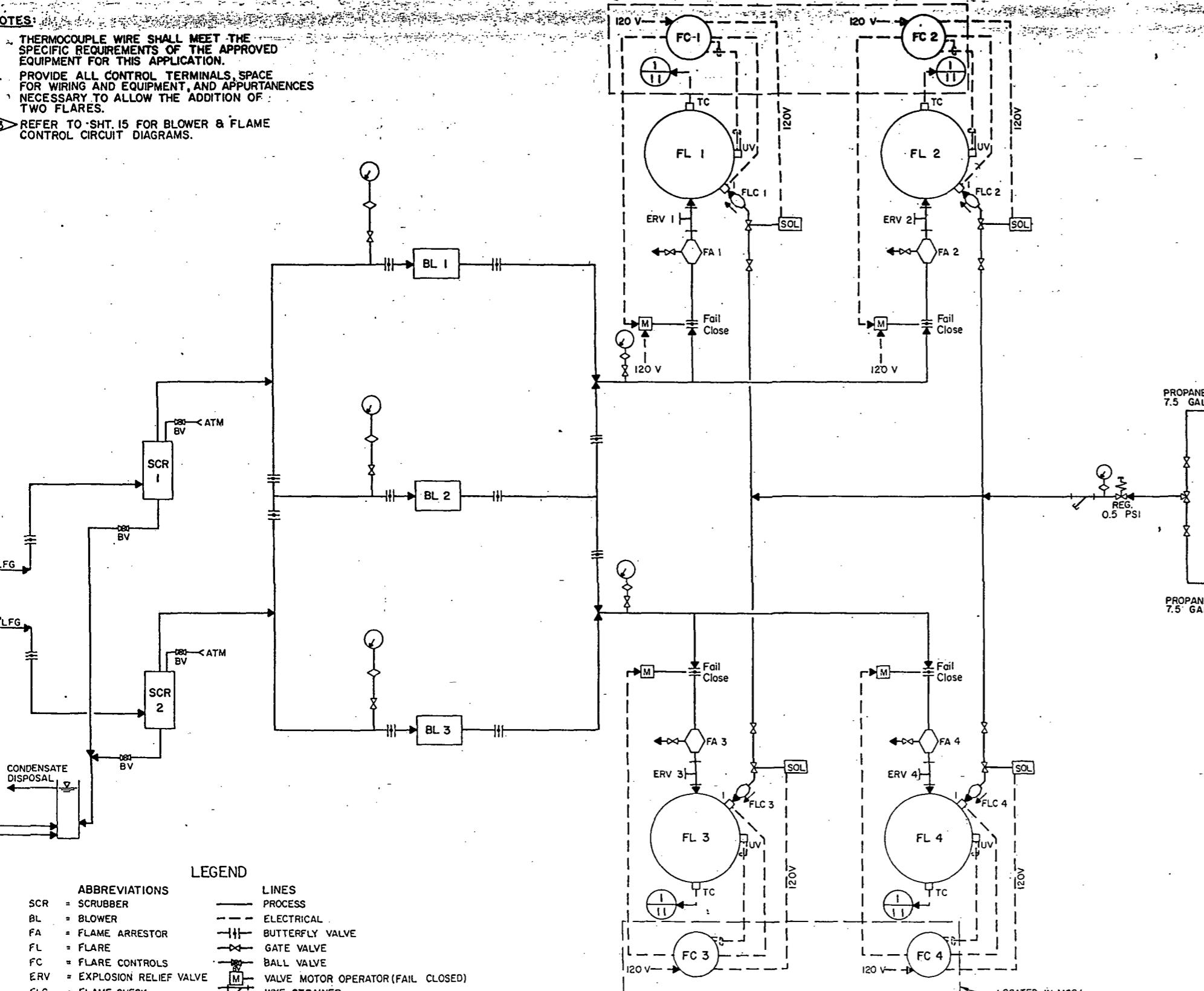
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ORDINANCE NO. 112413 APPROVED FUND: SWF SCALE: As Noted	

MIDWAY LANDFILL GAS MIGRATION CONTROL  
SYSTEM BLOWER/FLARE FACILITY  
**ROOF FRAMING PLAN,  
ARCHITECTURAL AND MECHANICAL DETAILS**

JOB NO. PC S1239 A  
R/W  
CO. S1239 C  
VAULT PLAN NO. 870-175  
SHEET 10 OF 15

## NOTES:

1. THERMOCOUPLE WIRE SHALL MEET THE SPECIFIC REQUIREMENTS OF THE APPROVED EQUIPMENT FOR THIS APPLICATION.
2. PROVIDE ALL CONTROL TERMINALS, SPACE FOR WIRING AND EQUIPMENT, AND APPURTANENCES NECESSARY TO ALLOW THE ADDITION OF TWO FLARES.
3. REFER TO SHT. 15 FOR BLOWER & FLAME CONTROL CIRCUIT DIAGRAMS.



BLOWER/FLARE PROCESS &amp; INSTRUMENTATION DIAGRAM

'AS BUILT' PER PLAN EXCEPT AS NOTED

parametrix, Inc.

Office Box 460  
13020 Northup Way, Suite 8  
Bellevue, Washington 98005  
420-663-5126 455-2550 377-0014



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SEATTLE WASHINGTON *S-120-1938*

ATTEST: *[Signature]*  
Executive Secretary

PROJECT NO. *5120-1938*

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CHECKED RVH 2/88  
DRAWN JJM 2/88  
CHECKED BWG 2/88  
DESIGN REVIEW RVH 2/88

REVIEWED: DES. CONST.  
TRANS. SVC. PROJ. MGR. LAB 2-749  
RECEIVED: *Diamond, A. L. 9/18/88*

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REVIEWED: DES. CONST.  
TRANS. SVC. PROJ. MGR. LAB 2-749  
RECEIVED: *Diamond, A. L. 9/18/88*

REVISED AS BUILT H.T. 12-07-90

THE CITY OF SEATTLE  
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ORDINANCE NO. 112413 APPROVED  
FUND: SWF  
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MIDWAY LANDFILL GAS MIGRATION CONTROL  
SYSTEM BLOWER/FLARE FACILITY

PROCESS AND  
INSTRUMENTATION DIAGRAM

PC S1239A  
JOB NO. 870-175  
R/W CO S1239C  
VAULT PLAN NO. 870-175  
SHEET 11 CF 15

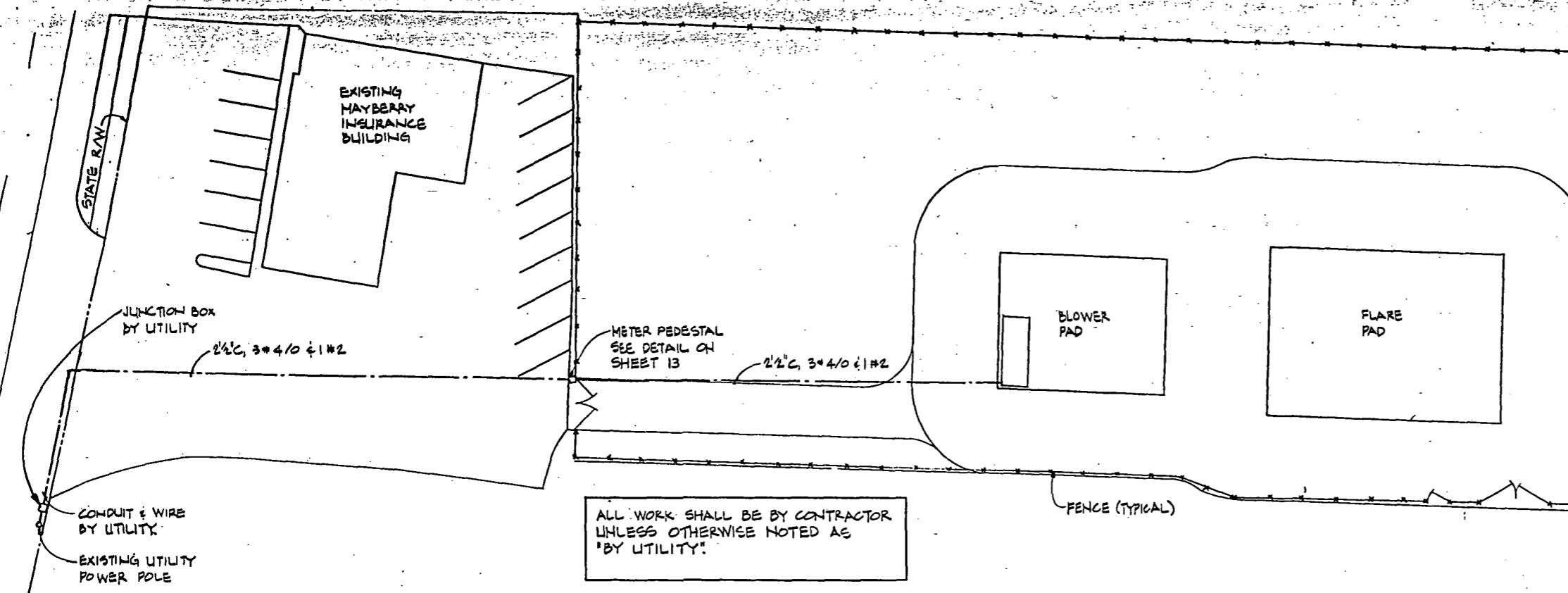
## SYMBOL LIST AND ABBREVIATIONS

### SYMBOL LIST

- (1) FLUORESCENT FIXTURE, SURFACE OR PENDANT MOUNTED, DRAWN TO SCALE ON PLANS. LITHONIA SERIES #8TEJ440 120ESW08.
- (2) HID FIXTURE PENDANT MOUNTED, 250W HPS APPLETION SERIES # LPAL 2501 OR APPROVED.
- (3) HID FIXTURE POLE MOUNTED, 400W HPS. McGRAW-EDISON SERIES #FC2268S OR APPROVED.
- (4) SWITCH - SINGLE POLE SUBSCRIPT a, b, ETC., DENOTES CIRCUIT CONTROLLED
- (5) 3 WAY - SWITCH
- (6) DUPLEX RECEPTACLE 120V, 10 NEMA 5-20
- (7) UNIT HEATER (UH) 3.3 KW, 240V, TRANE MODEL # UHEC-031AOBO.
- (8) EXPOSED RACEWAY W/CONDUCTORS. HASH MARKS INDICATE NUMBER OF WIRES. #12 AWG WIRE UNLESS OTHERWISE NOTED. 2 WIRES IF NO HASH MARK SHOWN. LONG HASH MARK DENOTES NEUTRAL. • INDICATES GROUND WIRE. ARROW INDICATES HOMERUN.
- (9) UNDERGROUND RACEWAY W/WIRES AS ABOVE
- (10) SEAL IN CONDUIT AS REQUIRED BY NEC ARTICLE 501.
- (11) JUNCTION BOX, J-BOX
- (12) MOTOR STARTER (MAGNETIC)
- (13) FUSED SWITCH, 480V, 3 POLE WITH CLASS R FUSES UNLESS OTHERWISE NOTED. FUSE CLIPS SHALL BE REJECTION TYPE.
- (14) THERMOSTAT, REVERSE ACTING. TURN ON EF AS HEAT IN BUILDING RISES.
- (15) THERMOSTAT TO TURN ON UH AT 550 F OR BELOW.
- (16) SOLENOID VALVE
- (17) IGNITION TRANSFORMER
- (18) MOTOR OPERATED VALVE
- (19) CONTROL RELAY
- (20) TIME DELAY RELAY

### ABBREVIATIONS:

- |       |                                                              |
|-------|--------------------------------------------------------------|
| BL    | BLOWER                                                       |
| CB    | CIRCUIT BREAKER                                              |
| CKT   | CIRCUIT                                                      |
| EF    | EXHAUST FAN, WALL MOUNTED, 380 CFM, BROAN MODEL 12C OR EQUAL |
| EXP   | EXPLOSION PROOF                                              |
| FC    | FLARE CONTROL PANEL                                          |
| HPS   | HIGH PRESSURE SODIUM                                         |
| MCC   | MOTOR CONTROL CENTER                                         |
| N     | NEUTRAL                                                      |
| NIC   | NOT IN CONTRACT                                              |
| R,C   | RACEWAY                                                      |
| RO,CO | RACEWAY ONLY                                                 |
| TC    | THERMOCOUPLE                                                 |
| TYP   | TYPICAL                                                      |
| WP    | WEATHERPROOF                                                 |
| W/    | WITH                                                         |
| XFMR  | TRANSFORMER                                                  |



## ELECTRICAL SITE PLAN

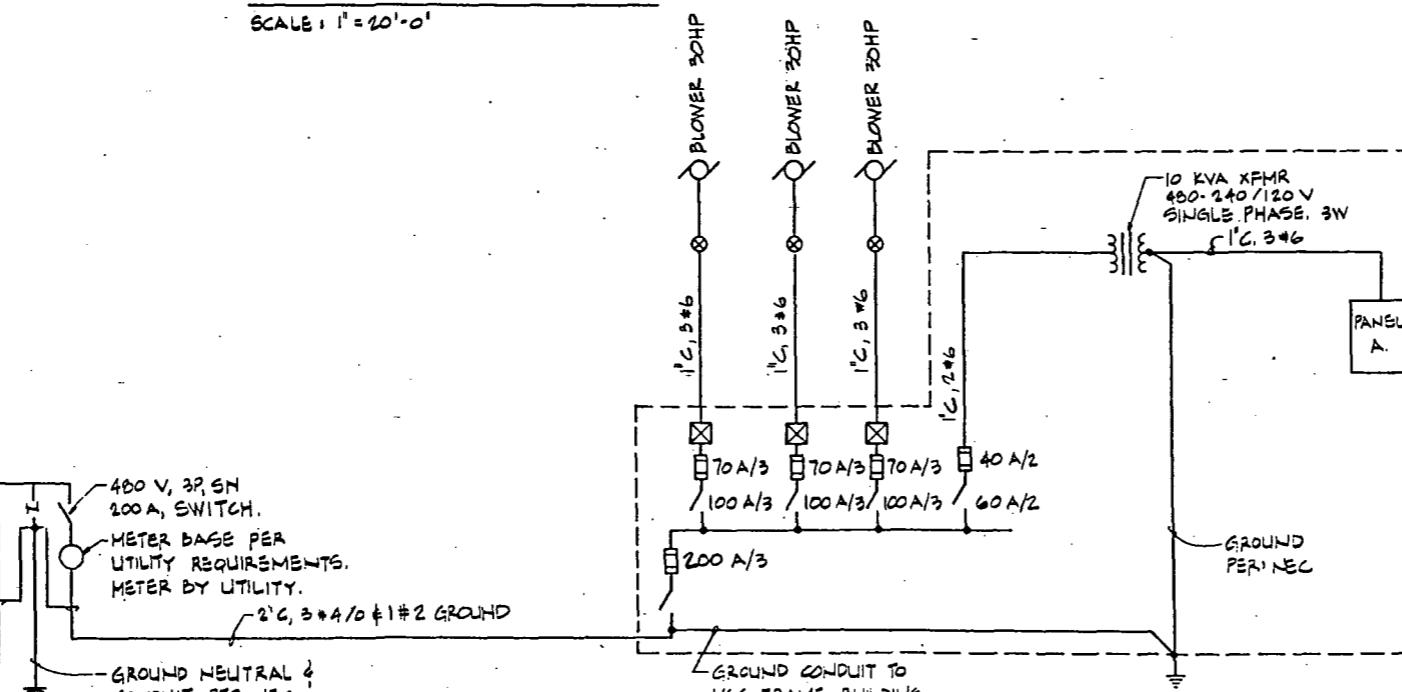
SCALE: 1" = 20'-0"

150 KVA, POLE MOUNTED  
TRANSFORMER BANK FAULT  
CURRENT AVAILABLE AT  
SECONDARY TERMINALS IS  
7,840 AMPERS. @480V

SERVICE TO UG BOX  
BY UTILITY

UG BOX & FINAL  
CONNECTIONS BY  
UTILITY

2 1/2", 3# 4/10 & 1#2 (NEUTRAL)  
LEAVE PIGTAIL IN UG BOX FOR  
CONNECTION BY UTILITY.



## ONE LINE DIAGRAM

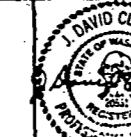
NOT TO SCALE

"AS BUILT" PER PLAN EXCEPT AS NOTED

netrix, Inc.



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Mechanical/Electrical  
Engineering Services  
(206) 407-7314  
601 Madison Ave. N.  
Seattle, WA 98101



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SEATTLE WASHINGTON  
5/25/1988  
ATTEST:  
John Zorba  
Barbara Taylor  
EXECUTIVE SECRETARY  
PROJECT NO.

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED JDC 2/88	REVIEWED DES CONST. PROJ MGR AS
CHECKED EH 2/88	DRAWN TRANS. SVC.
	CHECKED RECEIVED Diana Gall 5/18/88
	DESIGN REVIEW REVISED AS BUILT H.T. 12.07.90
	ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF SEATTLE STANDARD PLANS AND SPECIFICATIONS IN EFFECT AT THE DATE THIS DRAWING WAS ISSUED, AND SUPPORTED BY SPECIFIC PROVISIONS.

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING

ORDINANCE NO 112413 APPROVED  
FUND: SWF  
SCALE: AS Noted  
INSPECTOR'S BOOK

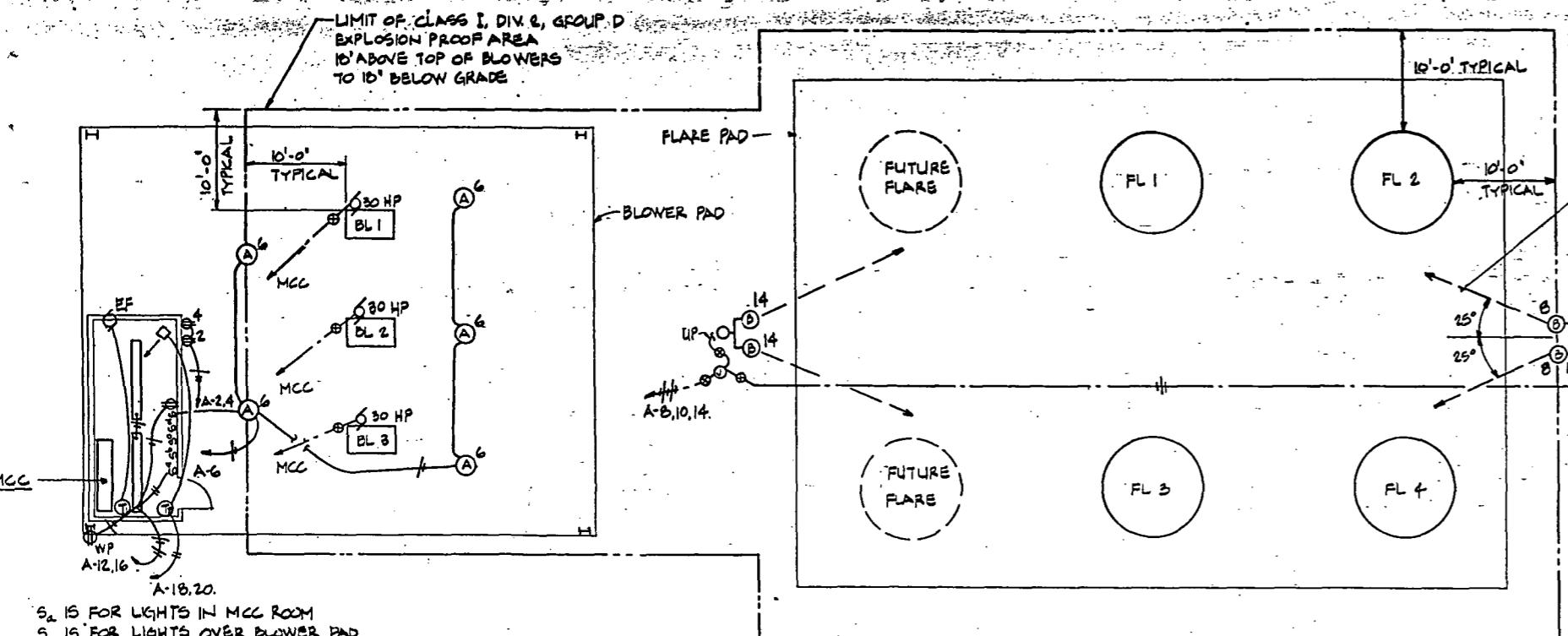
MIDWAY LANDFILL GAS MIGRATION CONTROL  
SYSTEM BLOWER FLARE FACILITY

ELECTRICAL PLAN AND  
ONE LINE DIAGRAM

PC S1239A  
R.W.  
CO. S1239C

Vault Plan No  
870-175

Sheet 12 of 15



10'-0' TYPICAL  
LUMINAIRE AMING DIRECTION, TYPICAL  
ALLOW 6 HOURS IN BLD (AFTER DARK)  
TO FIELD ADJUST 4 FLOODLIGHTS AS  
DIRECTED BY ENGINEER. SET LUMINAIRE  
TILT ANGLE AT 42.5 DEGREES.  
LUMINAIRE MOUNTING BRACKET  
40' CLASS 3 CEDAR POLE SEE  
NOTE 1 (TYPICAL OF 2).

12°  
25°  
12' C, 2x12 UP TO  
TYPE B LUMINAIRE

VOLTS 240/120  
BUS 100A  
MAIN 50A  
SYM. FAULT CURRENT RATING 10,000 AIC LOC. MCC

PANEL A  
FEED MTG

CIR. NO.	BREAKER NO.	AMP POLE	LTD. REC. NO.	DESCRIPTION	LOADS		
					SA	SB	SC
1	20	1		FLARE #1 FLAME CONTROL	0.90		
3						0.90	
5							0.90
7							0.90
9							
11							
13							
15							
17							
19							
21							
23							
25							
27							
29							
31							
33							
35							
37							
39							
41							
2	20	1		RECP - S-E CORNER BLOWER PAD	0.18		
4						0.18	
6					1.50		
8					1.00		
10					0.18		
12					0.36		
14					1.00		
16					0.18		
18	20	2		RECP - SW CORNER MCC BLDG.	0.18		
20					1.68		
22	20	1		UH - MCC BLDG	1.68		
24	20	1		RADIO ALARM SYSTEM POWER SUPPLY	1.5		
26					SPACE		
28							
30							
32							
34							
36							
38							
40							
42							
KVA PER PHASE							
CONTINUOUS LOAD							
+ OTHER LOAD =							
TOTAL LOAD =							
KVA = AMPS							

### ELECTRICAL POWER & LIGHTING PLAN

SCALE: 1'-0" = 1'-0"

CABINET TO BE FABRICATED FROM 1/8" MINIMUM  
TYPE 3003-3 ALUMINUM ALL HARDWARE SHALL  
BE FROM STAINLESS STEEL UNLESS OTHERWISE  
NOTED.

VIEW GLASS FOR METER  
READING.

DOOR SHALL BE REMOVABLE WITH  
HIDDEN HINGE, GASKET, INTERNAL 3-  
POINT LATCH & HANDLE WITH PROVISIONS  
FOR UTILITY PADLOCK.

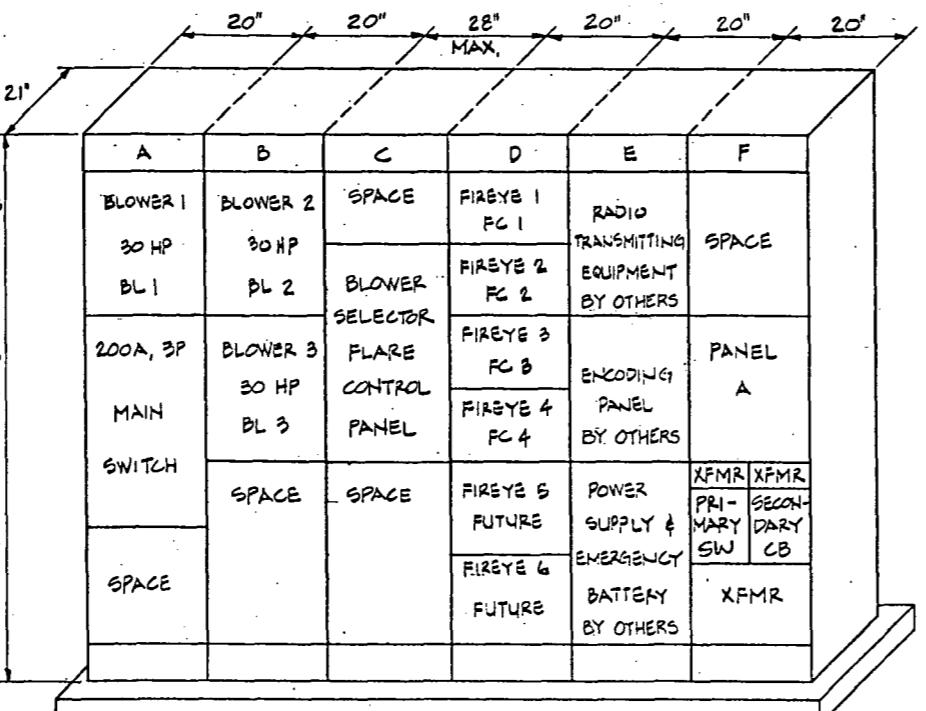
480V, 3P, DISCONNECT SWITCH WITH  
SOLID NEUTRAL INSIDE METER  
PEDESTAL WITH LOCKABLE OPERATOR  
ACCESSEABLE WITHOUT OPENING  
DOOR.

CABINET TO BE CONSTRUCTED TO 90°  
MEET NEMA 12 RAINPROOF STANDARDS  
FOR ENCLOSURES WITH RAIN GUTTER  
TYPE FACE.

1/2" x 18" x 4" HOT DIP GALVANIZED  
STEEL ANCHOR BOLTS (4) WITH GALVANIZED  
HARDWARE TO BOLT DOWN CABINET.  
WASHERS TO BE SQUARE, GALVANIZING  
PER ASTM A153. TWO WASHERS AND  
NUTS PER BOLT FOR PLUMBING  
CABINET.

CONCRETE PEDESTAL FOUNDATION  
SHALL BE 1/2" LESS IN DIMENSIONS  
"W" & "D" THAN CABINET WHICH SHALL  
SLIP OVER FOUNDATION 2".

METER PEDISTAL & FOUNDATION  
NOT TO SCALE



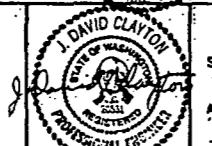
### NOTES:

1. BUTT OF POLES SHALL BE TREATED WITH PENTACHLOROPHENOL.
2. PROVIDE 3 1/2" x 24" x W" CONCRETE KNEELING PAD IN FRONT OF METER CABINET SLOPED 2% AWAY FROM CABINET.

metrix, Inc. 1200 Northup Way, Suite B Seattle, Washington 98103 (206) 417-7314 414 Pender Ave. N. Seattle, WA 98101-3128



Chute Engineering  
Mechanical/Electrical  
Engineering Services



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SEATTLE, WASHINGTON  
J. DAVID CLAYTON  
ATTEST: *D. Zahn*  
Richard Zahn  
EXECUTIVE SECRETARY

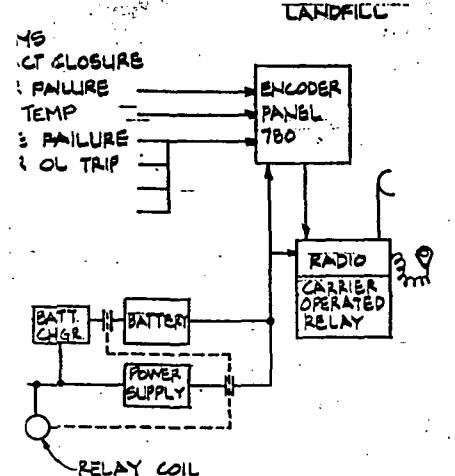
NAME OR INITIALS AND DATE  
DESIGNED JDC 2/88  
CHECKED EH 2/88  
DRAWN: TRANS SVC: CONST:  
RECEIVED D. Zahn 8/14/88  
DESIGN REVIEW: REVISED AS BUILT H.T. 12-07-90  
All work done in accordance with the City of Seattle Standard Plans and Specifications in effect in the date shown above, and supplemented by Specific Provisions.

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. 112413 APPROVED  
FUND: SWF  
SCALE: AS Noted  
INSPECTOR'S BOOK

MIDWAY LANDFILL GAS MIGRATION CONTROL  
SYSTEM BLOWER FLARE FACILITY  
ELECTRICAL PLAN,  
DIAGRAMS AND SCHEDULE

PC S1239A  
OB CO S1239C  
VAULT PLAN NO 870-175  
SHEET 13 OF 15

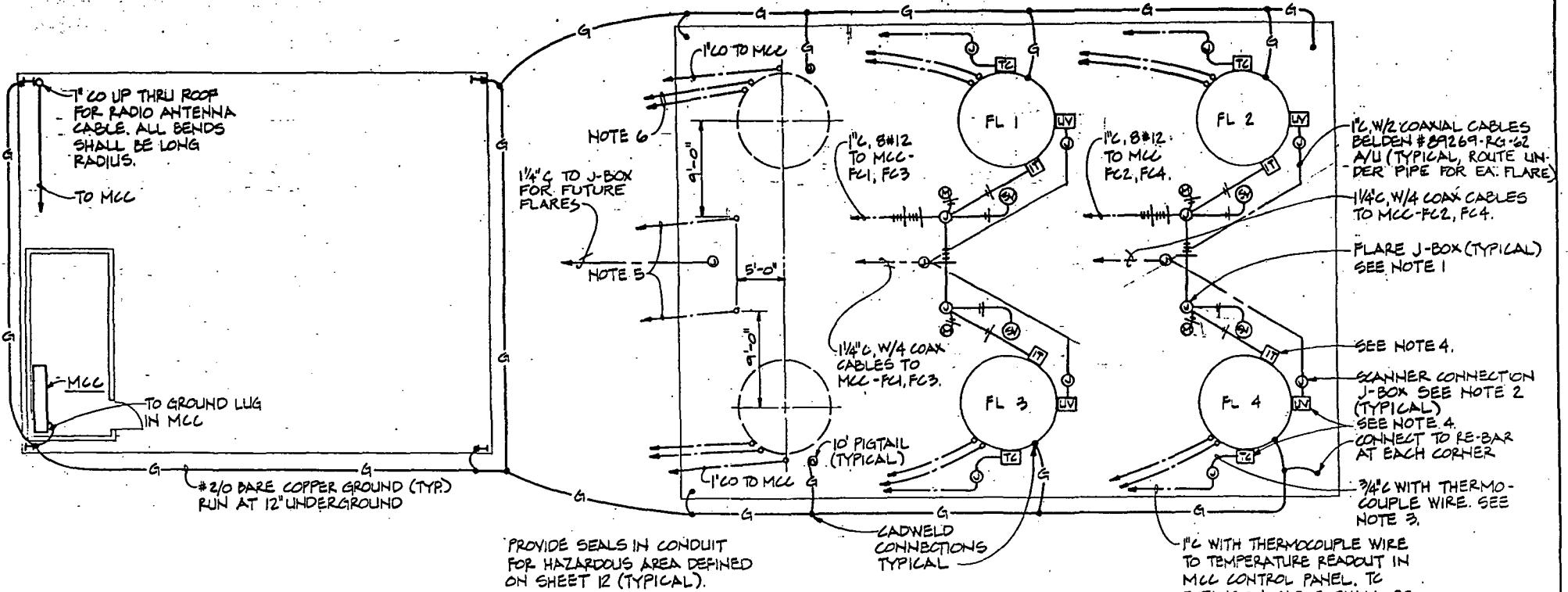
"AS BUILT" PER PLAN EXCEPT AS NOTED



### ALARM DIAGRAM

NO SCALE.

- THIS CONTRACTOR → TO ENCODER PANEL BY OTHERS
- TO 1
- TO 2
- TO 3
- TO 4
- TO 5
- TO 6
- HIGH TEMP ALARM-FLARE 1
- HIGH TEMP ALARM-FLARE 2
- HIGH TEMP ALARM-FLARE 3
- HIGH TEMP ALARM-FLARE 4
- FLAME FAILURE - FLARE 1
- FLAME FAILURE - FLARE 2
- FLAME FAILURE - FLARE 3
- FLAME FAILURE - FLARE 4
- FUTURE FLARES 5&6
- TO 7
- TO 8
- TO 9
- TO 10
- TO 11
- TO 12
- TO 13
- TO 14
- TO 15
- TO 16
- TO 17
- TO 18
- TO 19
- TO 20
- TO 21
- TO 22
- TO 23
- TO 24
- TO 25
- TO 26
- TO 27
- TO 28



### ELECTRICAL INSTRUMENTATION & CONTROL PLAN

SCALE: 1/8" = 1'-0"

#### NOTES:

1. FLARE J-BOXES SHALL BE LOCATED NEAR MOTOR OPERATED BUTTERFLY VALVES.
2. SCANNER CONNECTION J-BOXES SHALL BE LOCATED IN POSITION FOR CONNECTION OF SCANNER FLEXIBLE CABLE (36" LONG) TO COAX CABLE ALLOW FOR DRIP LOOP IN SCANNER FLEXIBLE CABLE.
3. PROVIDE 6" STAND-OFF CONDUIT SUPPORTS FOR ALL CONDUIT REQUIRED TO BE SUPPORTED BY FLARE CASING.
4. SEE DETAIL DRAWINGS OF FLARES FOR EXACT LOCATIONS OF ALL INSTRUMENTATION AND CONTROL EQUIPMENT MOUNTED THEREON.
5. 1/4" OF CONDUIT ONLY TO MCC FOR FUTURE FLARE CONTROL AND INSTRUMENTATION WIRING.
6. TWO 1" CONDUITS TO MCC FOR FUTURE AUTOMATIC LOUVER, POWER AND CONTROL WIRING, TYPICAL FOR ALL FLARES INCLUDING FUTURE.
7. REFER TO SHEET 13 FOR LIMITS OF CLASS 1 DIVISION 2.
8. ROUTE SURFACE CONDUIT RUNS UNDER LFG PIPELINE.

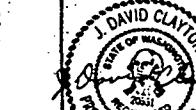
### ENCODER CONNECTION

NO SCALE



metrix, Inc.

**CE** Chute Engineering  
Mechanical/Electrical  
Engineering Services  
(206) 467-7314  
100 Northup Way, Suite 5  
Seattle, Washington 98103  
416 Dundas Ave. N.  
Suite 7  
Seattle, WA 98101  
455-2550



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SEATTLE WASHINGTON  
ATTEST:  
*John Zeller*  
EXECUTIVE SECRETARY

J. DAVID CLAYTON  
Chairman  
PROJECT NO.: 1988

NAME OR INITIALS AND DATE  
DESIGNED JDC 2/88  
CHECKED EH 2/88

INITIALS AND DATE  
REVIEWED: CONST.  
TRANS. SVC. PROJ.MGR./ES-7-10

RECEIVED: Design Sub 3/18/88  
DESIGN REVIEW: REVISED AS BUILT: H.T. 12-07-90

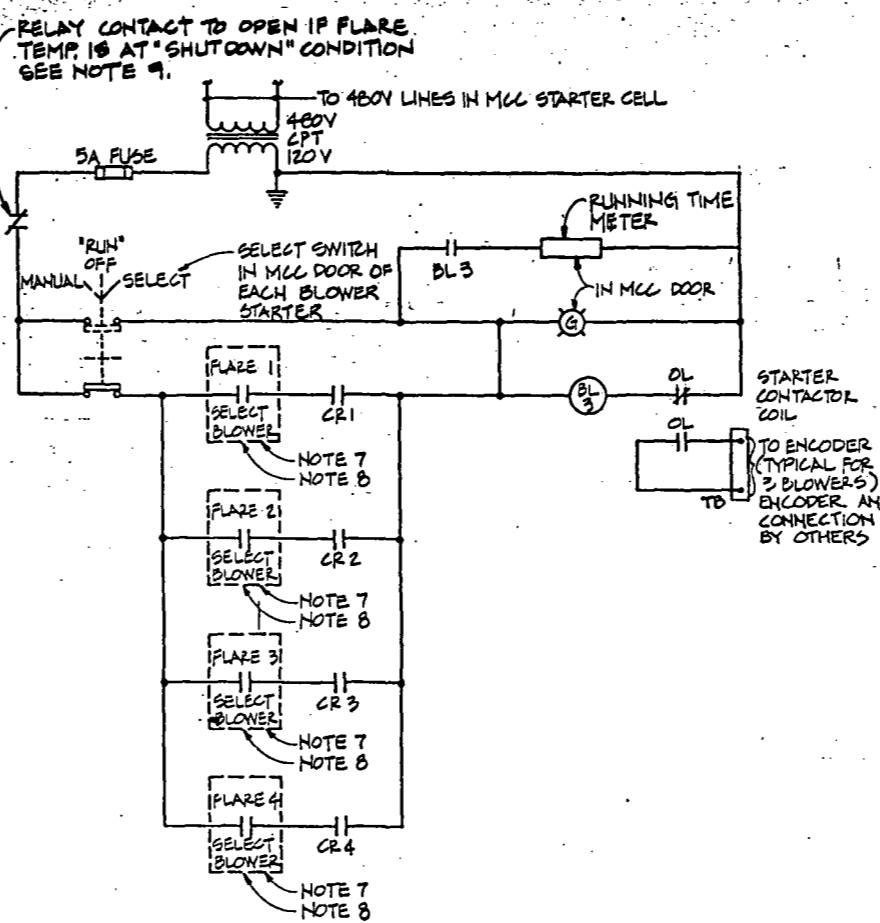
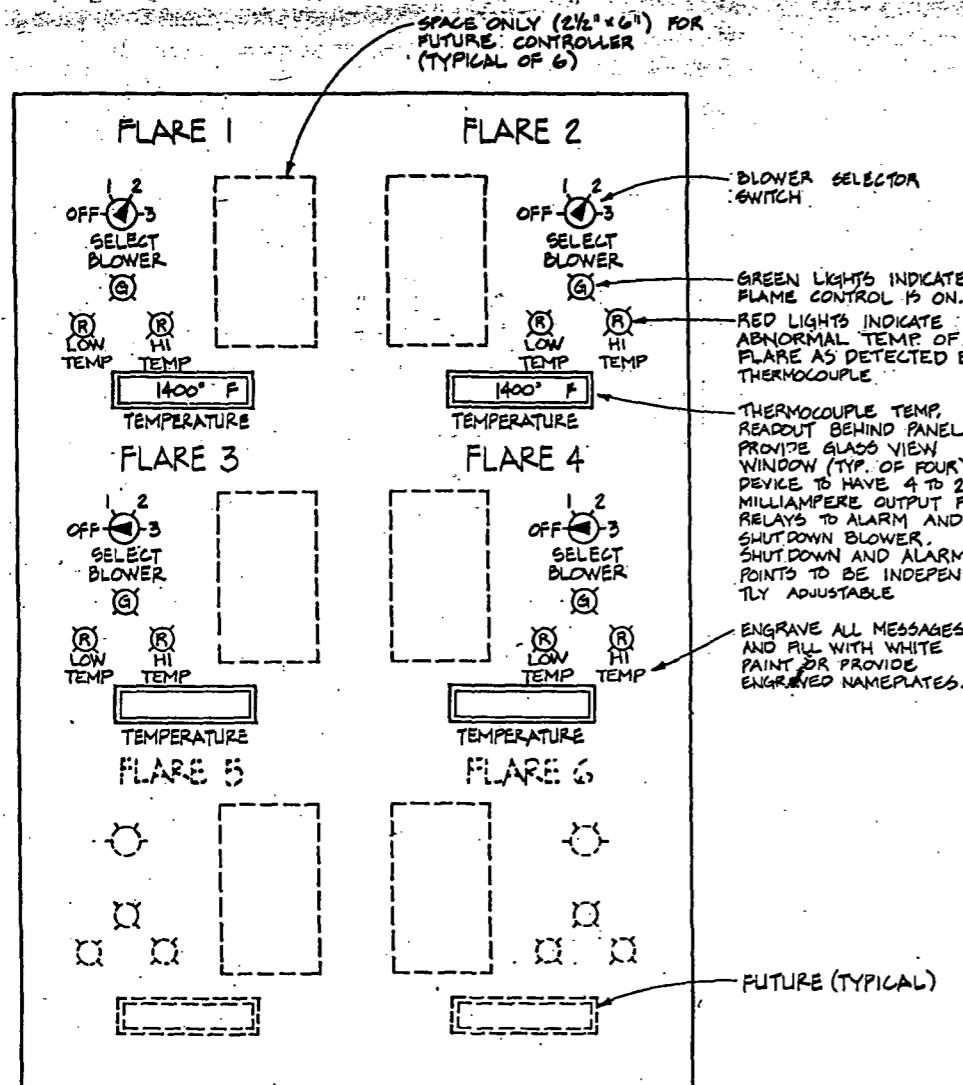
REVIEWED: APPROVED  
FUND: SWF  
SCALE: As Noted

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. 112413  
FUND: SWF  
SCALE: As Noted

INSPECTOR'S BOOK

"AS BUILT" PER PLAN EXCEPT AS NOTED  
MIDWAY LANDFILL GAS MIGRATION CONTROL  
SYSTEM BLOWER FLARE FACILITY  
ELECTRICAL CONTROL AND ALARM

PC S1239A  
R/W  
CO S1239C  
VAULT PLAN NO  
870-175  
SHEET 14 OF 15



### BLOWER #3 CONTROL CIRCUIT (NOTE 6)

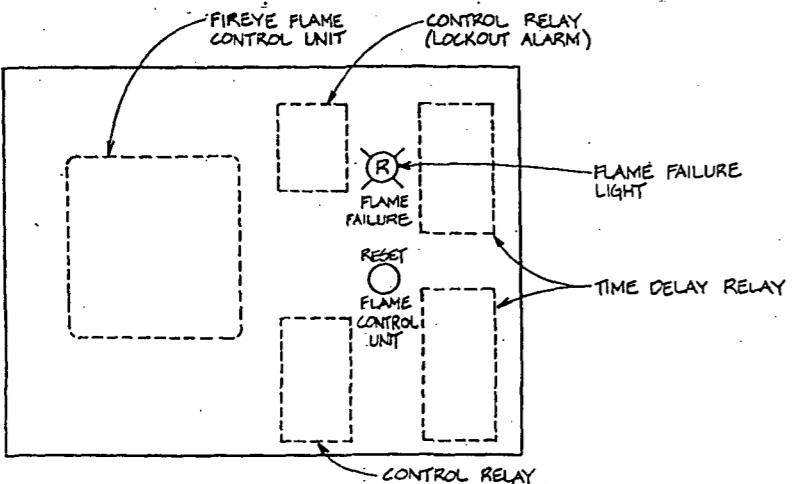
NOT TO SCALE.

#### NOTES: (CONT.)

6. BLOWER #1 & BLOWER #2 CONTROL CIRCUITS ARE SIMILAR AS NOTED BELOW IN NOTE 8.
7. THIS CONTACT OF BLOWER SELECTOR SWITCH IS CLOSED ONLY IN POSITION "3".
8. THIS CONTACT OF BLOWER SELECTOR SWITCH IS CLOSED ONLY IN POSITION "2" FOR BLOWER #2 AND IS CLOSED ONLY IN POSITION "1" FOR BLOWER #1.
9. PROVIDE INTERPOSING RELAY AS REQUIRED FOR FLARE TEMPERATURE "SHUTDOWN" CONDITION.

### BLOWER SELECTOR FLARE CONTROL PANEL

NOT TO SCALE

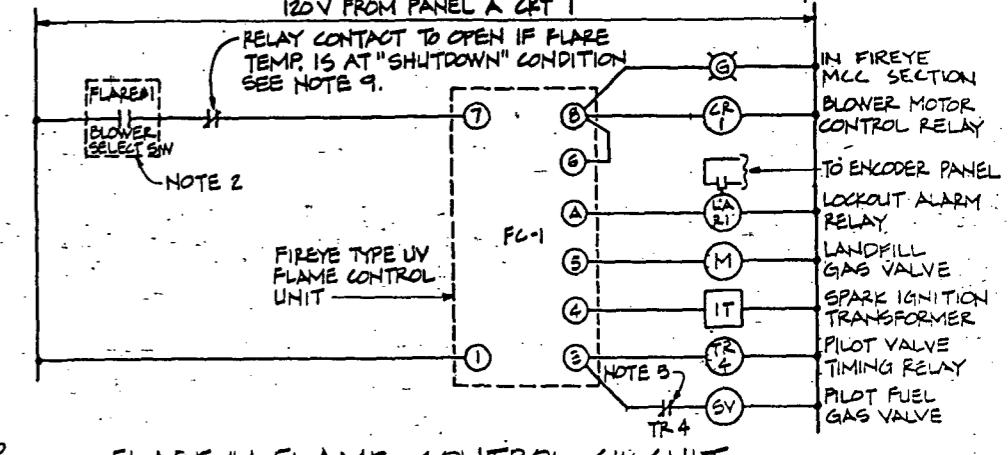


### FLAME CONTROL PANEL

NOT TO SCALE

120V FROM PANEL A CKT 1

RELAY CONTACT TO OPEN IF FLARE TEMP. IS AT "SHUTDOWN" CONDITION SEE NOTE 9.



*recycling*  
*File #*



# Seattle Solid Waste Utility

Division of Seattle Engineering Department

Gary Zarker, Director of Engineering  
Diana Gale, Director, Solid Waste Utility

July 27, 1990

Russ Darr, Project Manager  
Hazardous Waste Investigations and Cleanup Program  
Washington State Department of Ecology  
Mail Stop PV-11  
Olympia, Washington 98504-8711

**RE: Midway Landfill. Final Project Reports for Consent Decree Projects**

Dear Mr. Darr:

This letter constitutes the Final Project Report for the four remedial construction projects already completed at the Midway Landfill, per Section XI.B.3 of the Midway Landfill Consent Decree.

Attached are record drawings for each of the four remedial construction projects completed to date, including 1) Off-site Drainage with Highway 99, 2) Final Motor Blower/Flare Facility, 3) On-site Grading and Drainage, and 4) East/I-5 Pump Station. Three out of the four sets of plans are "as-built" drawings prepared for final transfer to the official mylars that will be stored in a safety vault within the Seattle Municipal Building as permanent records. The other one is already a copy of an official set of "as-builts." I will be forwarding you copies of the three official "as-builts" as soon as they are available.

Major and minor changes within the general scope of the contract are noted and highlighted in the drawings. Examples of minor changes include material changes and grade changes. Major deviations from the approved plans and specifications for each project are summarized below:

- Off-Site Drainage with Highway 99: This project was completed per plan with minimal changes within the general scope of the contract. Please see Attachment #1 for the final as-built drawings.
- Final Motor Blower/Flare Facility: In general, this project was also completed per plan with some minor changes. One change involved the City of Seattle directing the contractor to install additional pressure switches and electrical connections to the blower system for added safety features. A copy of the change order for this work is attached (Attachment #2) for your information. Please see Attachment #3 for the as-built drawings.

Recycled Paper

"An Equal Employment Opportunity—Affirmative Action Employer"  
505 Dexter Horton Building, 710 Second Ave., Seattle, WA 98104 (206) 624-7666

10001940

Russ Darr  
July 27, 1990  
Page 2

- On-Site Grading and Drainage: During excavation, it was anticipated that the contractor would encounter an estimated 2000 cubic yards of refuse. However, the actual amount excavated and disposed on site was almost 6000 cubic yards.

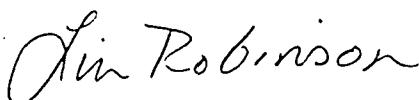
Another modification involved the contractor proposing the City of Seattle accepting an alternate borrow material that was found to be suitable for filling and still satisfied the intent and purposes of the contract. The alternate borrow material replaced the aggregate Type 17. A copy of the change order is attached (Attachment #4) for your information; the as-built drawings are included as Attachment #5.

- East/I-5 Pump Station: The amount of refuse encountered in this project was 4204 cubic yards, which exceeded the original estimate of 1400 cubic yards. The storm drain profile in sheet 5 shows the location where refuse was excavated. With the approval of Ecology, the trenches were backfilled with refuse. Backfilling did not go the full length of the pipes because of 2-foot minimum cover over refuse requirement. The cut-off point is approximately the location of MHE-5 as shown in sheet 6. the remaining refuse was disposed on-site in the landfill.

Finally, a provision to cut and abandon our existing storm drain pipe, illustrated in sheet 7 was not carried out because that particular pipe was a short enough section to be removed completely. Please see Attachment #6 for the as-built drawings.

I trust that this Final Project Report meets with your approval. We would like the opportunity to meet with Ecology to go over any questions or comments related to the changes in the drawings once you have had the chance to review them. Please call me at 684-7687, or Alex Tonel at 684-7693, to set up a meeting.

Sincerely,



LIN ROBINSON, M.S.  
Midway Program Manager

LAR:mls

Attachments

10001941

Russ Darr  
July 27, 1990  
Page 3

bcc: Bruce Jones  
Alex Tonel  
Marian Abbott  
Jerry Dahl  
Midway Files

10001942

## **ATTACHMENTS**

**RE: FINAL PROJECT REPORTS FOR  
WORK TO BE PERFORMED  
(SECTION XI (B) OF THE 1990 CD)**

1       The planning and design of each of these projects was  
2 reviewed and approved by Ecology prior to construction. Any  
3 supporting documents for these projects previously approved and  
4 which are listed in Appendix B are hereby incorporated into  
5 this Decree by reference.

6       B. Work To Be Performed

7       Within thirty (30) days of the effective date of this  
8 Decree, or as soon thereafter as weather conditions will  
9 permit, Seattle shall begin work on the Landfill Cover and  
10 Final Gas Manifold Projects as described below. While Ecology  
11 has approved the concept for these projects, Ecology has not  
12 yet approved the design drawings, specifications, and project  
13 manual for the addition of one foot of clayey silt or silty  
14 clay as described herein:

15      1. Landfill Cover. The work to be performed for this  
16 Decree consists of construction of a multi-layered landfill  
17 cover system comprised of the following layers (from bottom to  
18 top):

- 19       a. One foot of clayey silt/silty clay or amended soil  
20 material with a permeability not greater than  $1 \times 10^{-7}$   
21 cm/sec, as measured after placement.
- 22       b. 50-mil synthetic membrane
- 23       c. Geonet drainage layer.
- 24       d. One foot of sand.

1       e. One foot of topsoil planted with shallow rooted  
2            grasses.

3       The placement of the clayey silt/silty clay will be  
4       limited to the central area of the landfill. The north slope  
5       along the detention pond and the east slope along I-5 will  
6       receive the 50-mil synthetic membrane (textured) only because  
7       of the difficulty in placing the clayey silt/silty clay on the  
8       steep slopes.

9       2. Final Gas Manifold System. The work to be performed  
10      for this Decree consists of construction of a permanent  
11      manifold piping system which links the on-site gas extraction  
12      wells to the permanent motor blower and flare system. The gas  
13      manifold system shall include construction of a collection  
14      system for condensate from the gas pipelines. The final gas  
15      manifold system constitutes the final element for completion of  
16      the on-site landfill gas extraction system.

17       Any supporting documents for these projects previously  
18       approved and which are listed in Appendix B are hereby  
19       incorporated into this Decree by reference. While Ecology has  
20       approved the concept for these projects, Ecology has not yet  
21       approved the design drawings, specifications, and project  
22       manual for the addition of one foot of clayey silt or silty  
23       clay as described herein.

24       3. Final Project Reports. Seattle shall prepare a final  
25       project report for each remedial action project constructed at

26       CONSENT DECREE

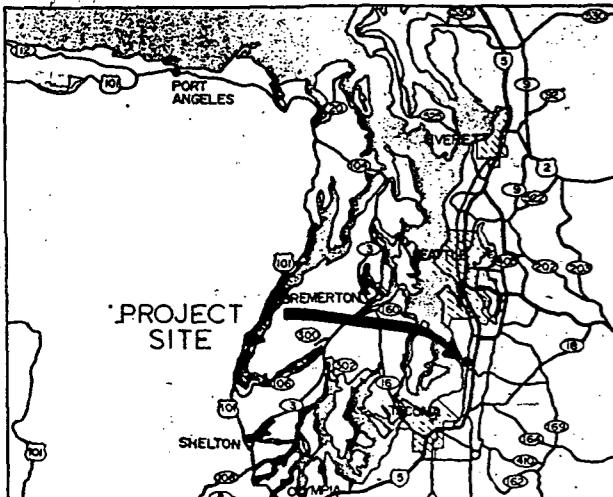
-20-

1 the landfill which shall include the following elements:  
2 record drawings documenting the work as constructed, and a  
3 narrative report identifying deviations from the approved plans  
4 and specifications.

5           4. Landfill Operation and Maintenance Manual.  
6 Seattle shall prepare a comprehensive Operation and Maintenance  
7 Manual which incorporates both short-term and long-term  
8 operation and maintenance requirements for all remedial action  
9 projects constructed at the Midway Landfill under the terms of  
10 this Decree. Seattle shall prepare a draft manual and shall  
11 submit five copies to Ecology for review. Seattle shall make  
12 revisions as appropriate and submit five (5) copies of the  
13 final manual to Ecology.

14           C. Work Plan

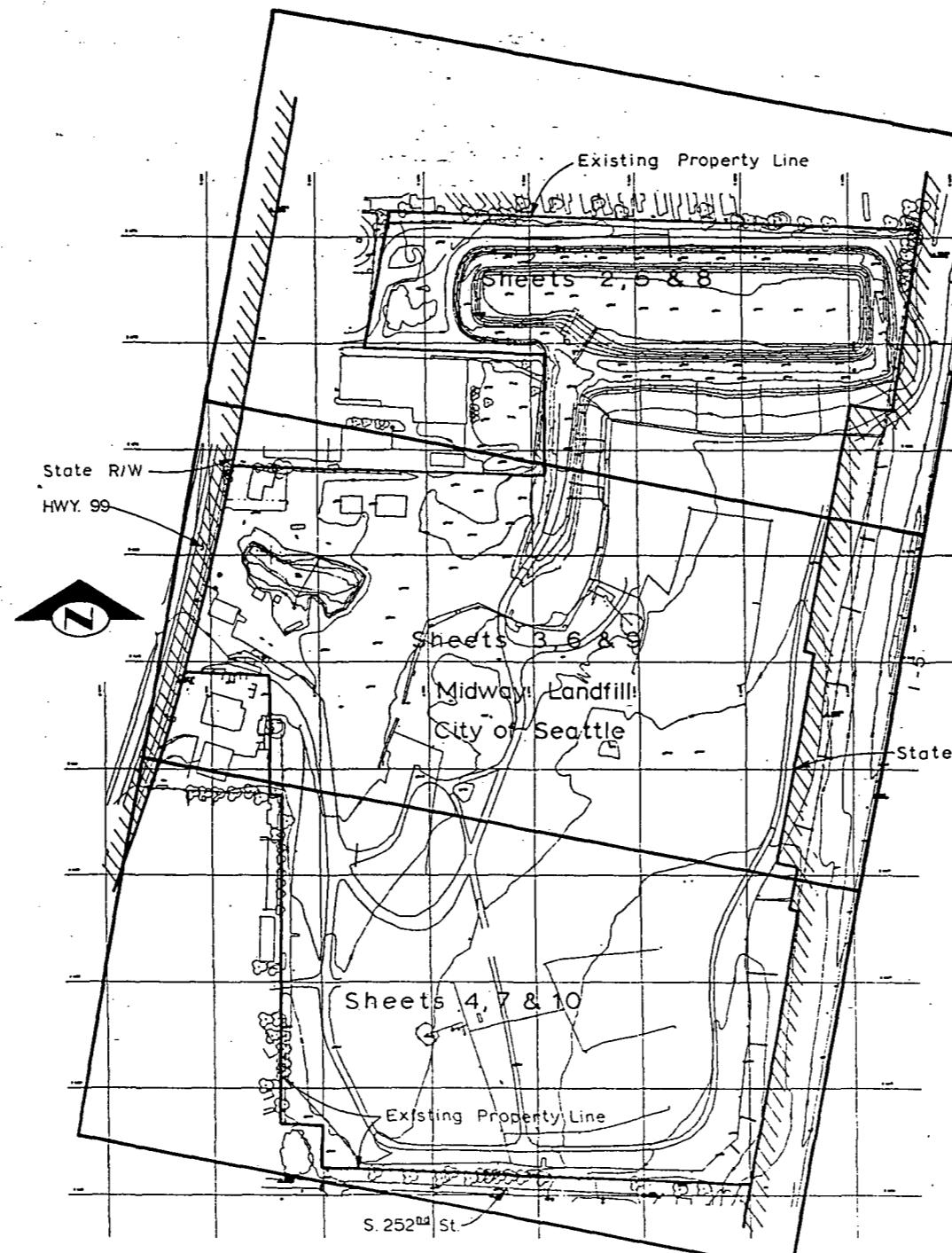
15           Within thirty (30) days of the effective date of this  
16 Decree, Seattle shall submit to Ecology a proposed work plan  
17 for the two projects listed in Section XI.B. above. For the  
18 purposes of this Decree, the work plan shall consist of a cover  
19 letter with the following attachments: a copy of all plans and  
20 specifications revised to include the one foot clay layer  
21 specified in Section XI.B.1. above; all change orders to the  
22 construction contract negotiated prior to the effective date of  
23 this Decree and approved by Ecology; an organization chart for  
24 Seattle's management staff assigned to the project, including  
25 the senior staff of the construction contractor retained by  
26



Vicinity Map  
No Scale

### Sheet Index

Sheet No.	Description
1	Vicinity Map, Sheet Index Map, Legend, Sheet Index & General Notes
2 - 4	Grading Plan
5 - 7	Condensate Collection Plan
8 - 10	Gas Collection Plan
11 - 13	Road Profiles
14 - 19	Cross Sections
20 - 22	Grading, Drainage & Cover Details
23 - 24	Liner Connection Details
25 - 27	Condensate Collection Details
28	Gas Collection Details
29	Miscellaneous Details
30	Electrical Details
31 - 35	PERIMETER LANDSCAPE PLAN



Sheet Index Map  
Scale 1" = 200'

**Note:**  
See Sheets 2, 5 & 8 For Legend Items Related to Specific Types of Construction Activities

### General Notes

Unless Otherwise Specified:

1. It shall be the Contractor's responsibility to contact the utilities within the construction area to verify the location of existing facilities. "One call" to 1-800-424-5555, 48 hours prior to digging (excluding weekends and holidays) will relay a message to the utility companies.
2. Horizontal Survey Control - Assumed coordinates of aerial target HV-7 (N 10,000 and E 10,000), located on S 252nd St., were provided by the City of Seattle Engr. Dept.
3. Datum - Elevation of aerial target HV-6 (376.20), located on S 252nd St., was provided by the City of Seattle Engr. Dept.
4. The geotechnical report, including test data, for soil borings is attached to the Special Provisions.
5. Existing Topography Shown is Based on Aerial Photography Performed on Feb. 11, 1989 and Ground Survey Performed on April 25, 1989 and Do Not Reflect Changes Made Subsequent to that Date.

### Detail Referencing

(A) Detail reference letter  
(2) Sheet on which detail appears

TITLE (A) Detail reference letter  
(1) Sheet from which detail was taken

"Section References are Similar"

'AS BUILT' PER PLAN EXCEPT AS NOTED

ametrix, Inc.



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BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON 7/27/1989

ATTEST: *Hilbert K. Jager*  
EXECUTIVE DIRECTOR  
PROJECT NO. 111-1111

NAME OR INITIALS AND DATE  
DESIGNED R. Gagnon  
CHECKED G. Fox

INITIALS AND DATE  
REVIEWED  
DES... CONST...  
TRANS. SVC... PROJ.MGR...  
RECEIVED Diana Cull 7/26/89

REvised as built 7/26/89

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
GARY ZARKER, DIRECTOR OF ENGINEERING  
ORDINANCE NO. 13200 APPROVED  
FUND SCALE H AS SHOWN INSPECTOR'S BOOK

Vicinity Map, Sheet Index Map, Notes and Sheet Index

Midway Landfill  
Final Cover System

ON	PC
OFF	R.W.
CO	CO
VAULT PLAN NO.	
782-177	
SHEET 1 OF 3035	

## CURVE DATA

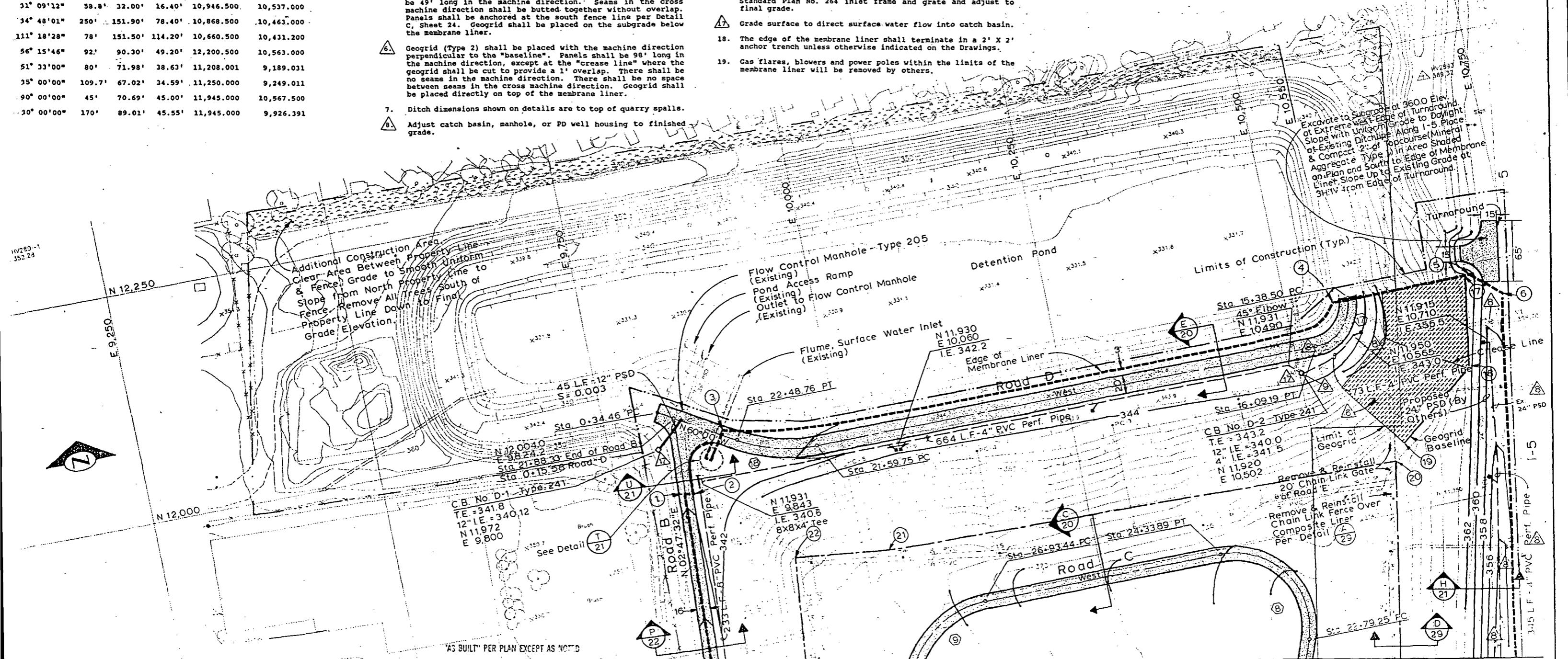
	P.I. COORDINATES			
78	DELTA	E	N	E
32° 33' 00"	250'	142.03'	72.99'	10,391.735
60° 10' 00"	200'	210.02'	115.86'	11,399.884
62° 22' 36"	120'	130.64'	72.64'	11,617.834
90° 00' 00"	150'	235.62'	150.00'	10,116.000
30° 00' 00"	250'	130.90'	66.99'	10,590.000
23° 00' 00"	250'	100.36'	50.86'	10,869.124
13° 45' 00"	250'	60.00'	30.14'	11,495.000
110° 45' 00"	80'	154.64'	115.86'	11,745.000
75° 00' 00"	100'	130.90'	76.73'	11,745.000
26° 00' 00"	200'	90.76'	46.17'	10,583.011
31° 09' 12"	58.8'	32.00'	16.40'	10,946.500
34° 48' 01"	250'	151.90'	78.40'	10,868.500
111° 18' 28"	78'	151.50'	114.20'	10,660.500
56° 15' 46"	92'	90.30'	49.20'	12,200.500
51° 33' 00"	80'	71.98'	38.63'	11,208.001
35° 00' 00"	109.7'	67.02'	34.59'	11,250.000
90° 00' 00"	45'	70.69'	45.00'	11,945.000
30° 00' 00"	170'	89.01'	45.55'	11,945.000
				9,926.391

## GRADING AND DRAINAGE NOTES

9. Connect perf. pipe to storm drainage structure per Section 7-05.3(1)N of the specifications and Detail F on Sheet 23.
10. Deflect perf. pipe per manufacturers recommendations or install additional flexible couplings or double bell couplings as necessary.
11. Perf. pipe shall be installed with a continuous downhill gradient between noted I.E.'s (Sheets 2, 3 and 4).
12. Culvert pipe shall be concrete per ASTM C76 Class III.
13. Subsurface drainage pipe shall be PVC per ASTM D-3034, SDR 35.
14. Perforated subsurface drainage pipe shall be PVC per AASHTO M 278.
15. All areas within the limits of the membrane liner shall be cleared and graded to a smooth uniform surface (subgrade) regardless of where "Final Subgrade Contour Lines" are shown or whether excavation or embankment is required to reach subgrade.
16. Remove existing grate and rebuild existing Type 202 Manhole. Contractor shall install Top Slab Type B (Type 202 MH) and Standard Plan No. 264 inlet frame and grate and adjust to final grade.
17. Grade surface to direct surface water flow into catch basin.
18. The edge of the membrane liner shall terminate in a 2' X 2' anchor trench unless otherwise indicated on the Drawings.
19. Gas flares, blowers and power poles within the limits of the membrane liner will be removed by others.
20. Ditch dimensions shown on details are to top of quarry spalls.
21. Adjust catch basin, manhole, or PD well housing to finished grade.

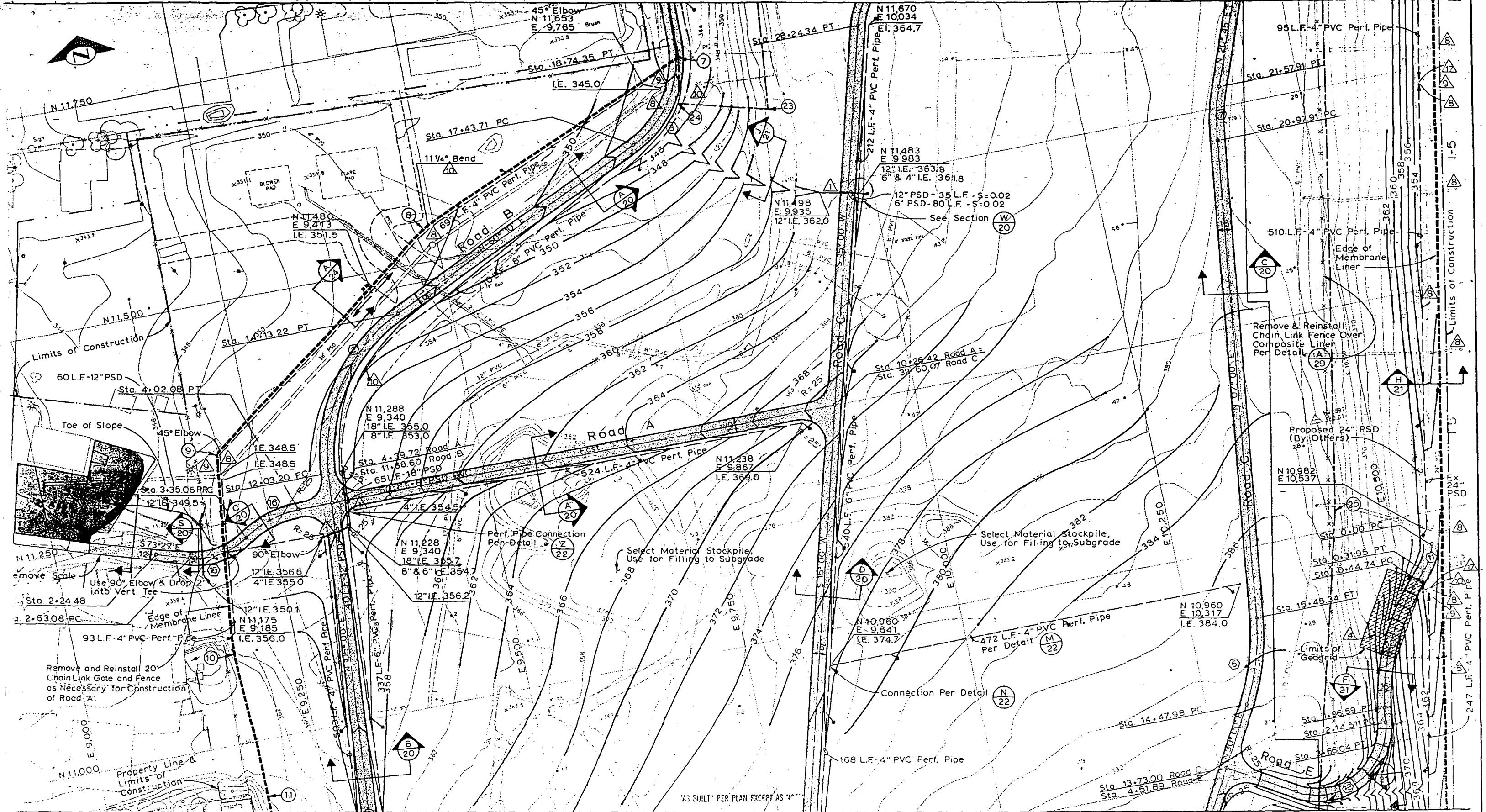
## LEGEND

- (5) Curve Number (See Curve Data Table on This Sheet)
- (2) Membrane Liner &or Drainage Net Angle Pt. (See Table on Sheet 4)
- (6) "Flag" Note Location (See Notes on This Sheet)
- Existing Contour Line
- - - - Final Subgrade Contour Line
- - - Edge of Membrane Liner
- - - - Edge of Existing Graded Road
- PC-1 or 12 Existing Gas Extraction Well
- Existing Gas Collection System
- - PVC Perf. Pipe Cleanout
- - - Drainage Layer Transition
- - - - Limits of Construction
- - - - - Chain Link Fence



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CHECKED G.Fox  
DRAWN K. Stollman, R. Gagnon  
CHECKED G.Fox  
DESIGN REVIEW G.FoxINITIALS AND DATE  
REVIEWED  
DES CONST PROJ MGR 7/28/92  
TRANS SVC RECEIVED Drawn 8/12/92  
REvised AS BUILT ABC 11/04/92THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
GARY ZARKER, DIRECTOR OF ENGINEERING  
ORDINANCE NO. APPROVED  
FUND: SCALE: H 1":50V. N.A. INSPECTOR'S BOOKSubgrade Grading Plan  
Midway Landfill  
Final Cover SystemPC  
R/W  
CO  
VAULT PLAN NO  
782-177  
JOB NO.  
SHEET 2 OF 30



Match Line

See Sheet 4

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*Thomas J. Talar*  
EXECUTIVE DIRECTOR

NAME OR INITIALS AND DATE  
DESIGNED R. Gagnon, G. Dicks  
CHECKED G. Fox

INITIALS AND DATE  
REVIEWED  
DES CONST  
TRANS. SVC. PROJ. MGR.  
DRAWN K. Stallman, R. Gagnon  
CHECKED G. Fox

RECEIVED Drama July 26/89

REVISED AS BUILT ABC 7/26/89

DESIGN REVIEW G. FOX

RECEIVED Drama July 26/89

REVISED AS BUILT ABC 7/26/89

DESIGN REVIEW G. FOX

RECEIVED Drama July 26/89

REVISED AS BUILT ABC 7/26/89

DESIGN REVIEW G. FOX

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RECEIVED Drama July 26/89

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DESIGN REVIEW G. FOX

RECEIVED Drama July 26/89

REVISED AS BUILT ABC 7/26/89

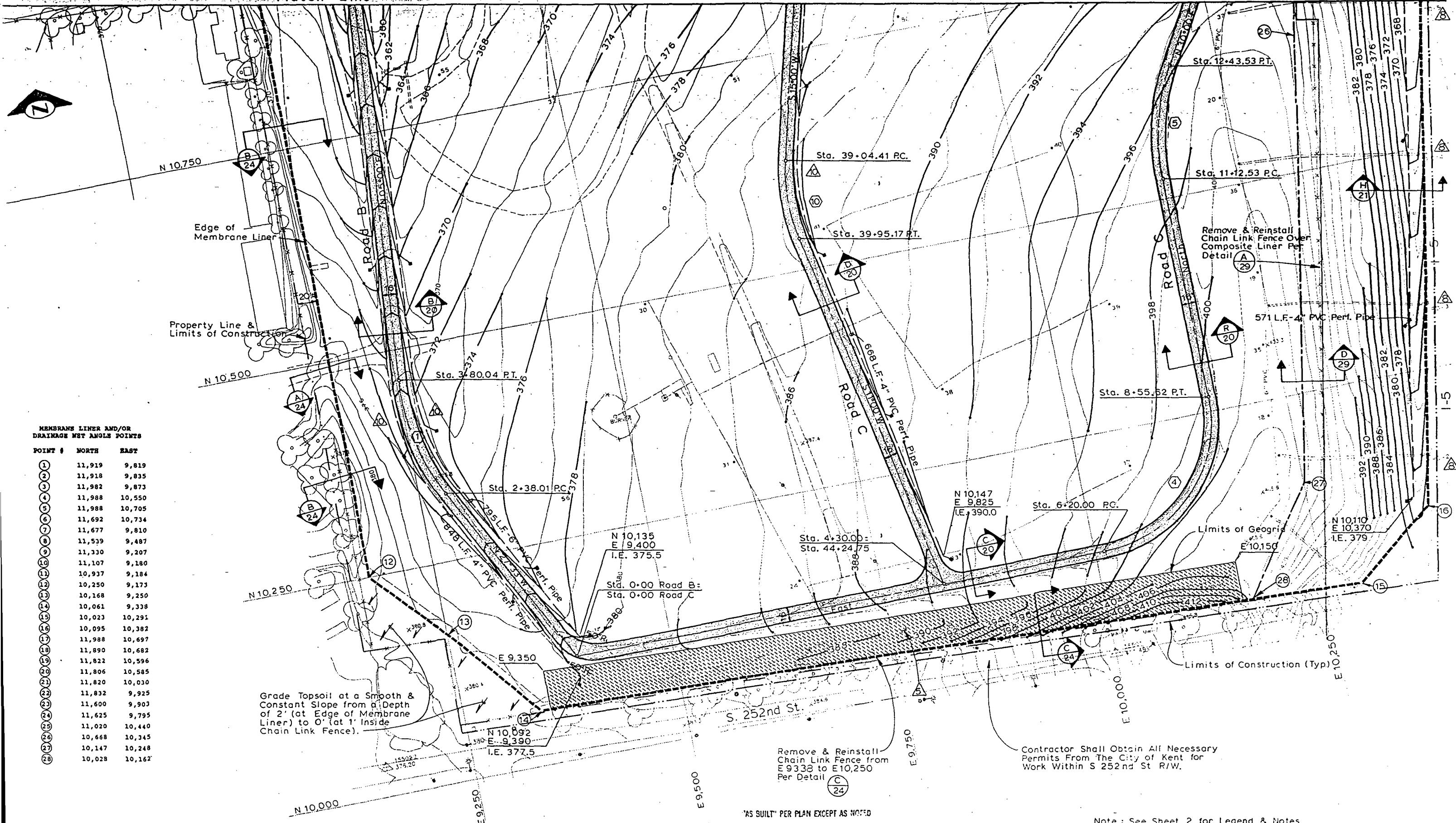
THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
GARY ZARKER, DIRECTOR OF ENGINEERING  
ORDINANCE NO. APPROVED  
FUND: INSPECTOR'S BOOK

Subgrade Grading Plan  
Midway Landfill  
Final Cover System

PC  
R.W.  
CO  
VAULT PLAN NO.  
782-177  
SHEET 3 OF 30

Match Line

See Sheet 3



Note : See Sheet 2 for Legend &amp; Notes

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Bellevue, Washington 98005  
425-2550



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ATTEST:  
*Barbara J. Tabor*  
EXECUTIVE DIRECTOR  
PROJECT NO. 7189

NAME OR INITIALS AND DATE  
DESIGNED R.Gagnon, G.Dicks  
CHECKED G.Fox  
DRAWN R.Gagnon, K.Stallman  
CHECKED G.Fox  
DESIGN REVIEW, G.Fox

INITIALS AND DATE  
REVIEWED  
DES. CONST.  
TRANS. SVC. PROJ.MGR/2624/CC  
RECEIVED Diane Gagnon 7/1/89



THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
GARY ZARKER, DIRECTOR OF ENGINEERING  
ORDINANCE NO. APPROVED  
FUND: INSPECTOR'S BOOK  
SCALE: 1" = 50' V.N.A.

Subgrade Grading Plan  
Midway Landfill  
Final Cover System

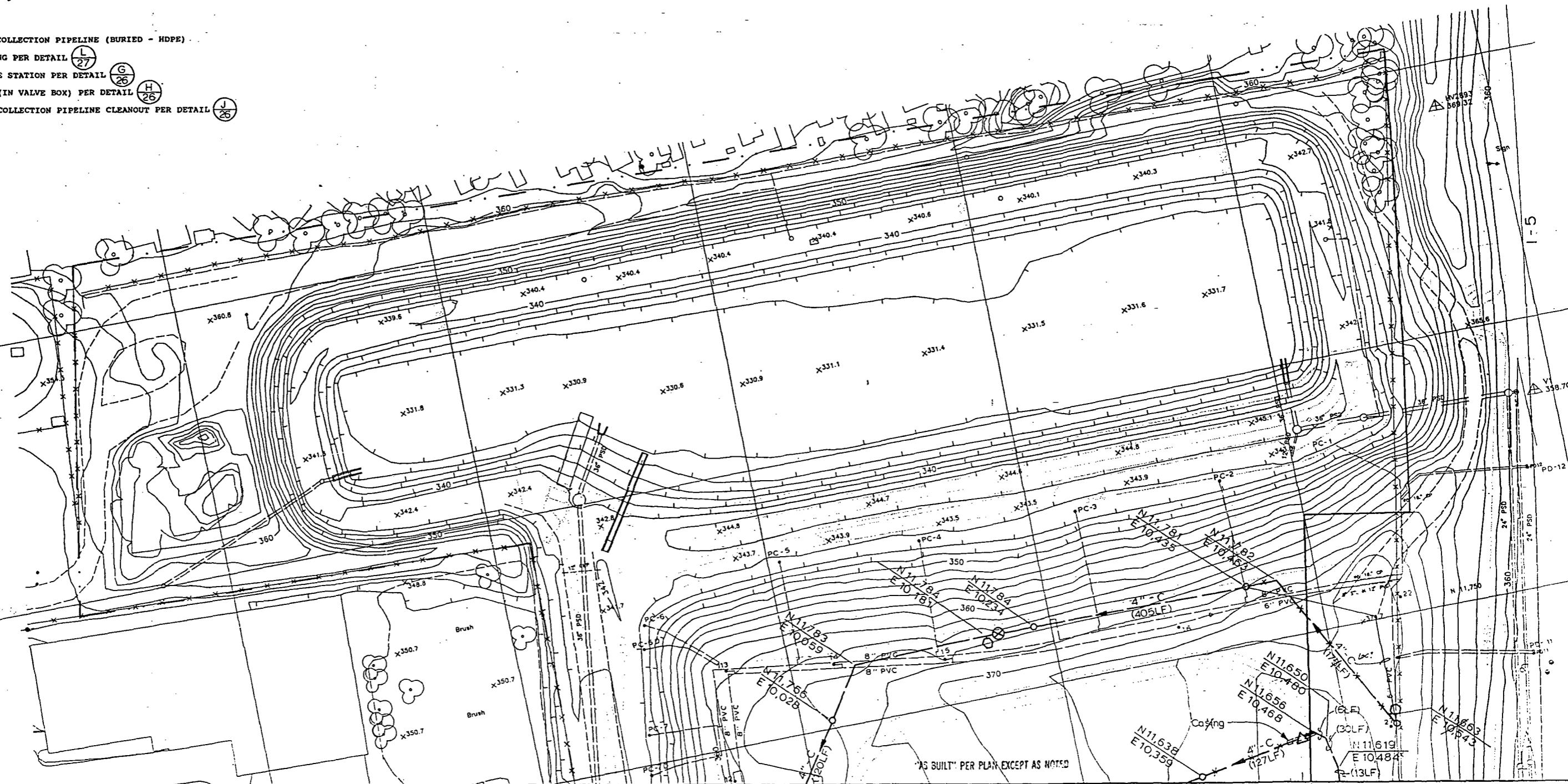
PC	.....
R W	.....
CO	.....
VULT PLAN NO	782-177
SHEET	4 CF 30

## CONDENSATE COLLECTION NOTES:

- All valves and valve boxes shown on the plans are to be installed as close to the nearest condensate connection point as practical (to be determined in the field).
- All invert elevations shown on the plans are estimates. See Detail K, Sheet 27 for the critical dimension from grade to install the condensate drain line.
- Cleanouts located at the beginning of each pipe run are to be installed as close to the nearest condensate connection point as practical (to be determined in the field).
- Center line of condensate pipe line to be placed 1' - 1" below finished grade elevations at all locations. Slope pipeline as required.
- Contours shown are subgrade contours. Final grade elevations to be 2' - 0" higher at all locations.

## LEGEND:

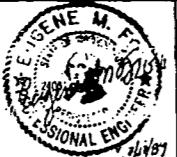
- CONDENSATE COLLECTION PIPELINE (BURIED - HDPE)
- △ ROAD CROSSING PER DETAIL L 27
- VACUUM VALVE STATION PER DETAIL G 26
- ⊗ BALL VALVE (IN VALVE BOX) PER DETAIL H 26
- CONDENSATE COLLECTION PIPELINE CLEANOUT PER DETAIL J 26



Match Line

See Sheet 6

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EXECUTIVE DIRECTOR

PROJECT NO.

Box 450 13020 Northup Way, Suite 8  
Seattle Washington 98100  
435-2550

NAME OR INITIALS AND DATE		INITIALS AND DATE	
DESIGNED: B. Sullivan	REVIEWED: R. Hines	INITIALS: CONST.	DATE: 7/28/89
CHECKED: R. Hines	TRANS. SVC.	INITIALS: PROJ. MGR.	DATE: 7/28/89
DRAWN: Gullidge, K. Stalman	RECEIVED: Drama Galy	INITIALS: 7/28/89	DATE: 7/28/89
CHECKED: B. Sullivan	REVISED AS BUILT: ABC 110452	INITIALS: APPROVED	DATE: 7/28/89
DESIGN REVIEW: R. Hines	SCALE: H. 1' = 50Y. N.A.	INITIALS: INSPECTOR'S BOOK	DATE: 7/28/89

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions

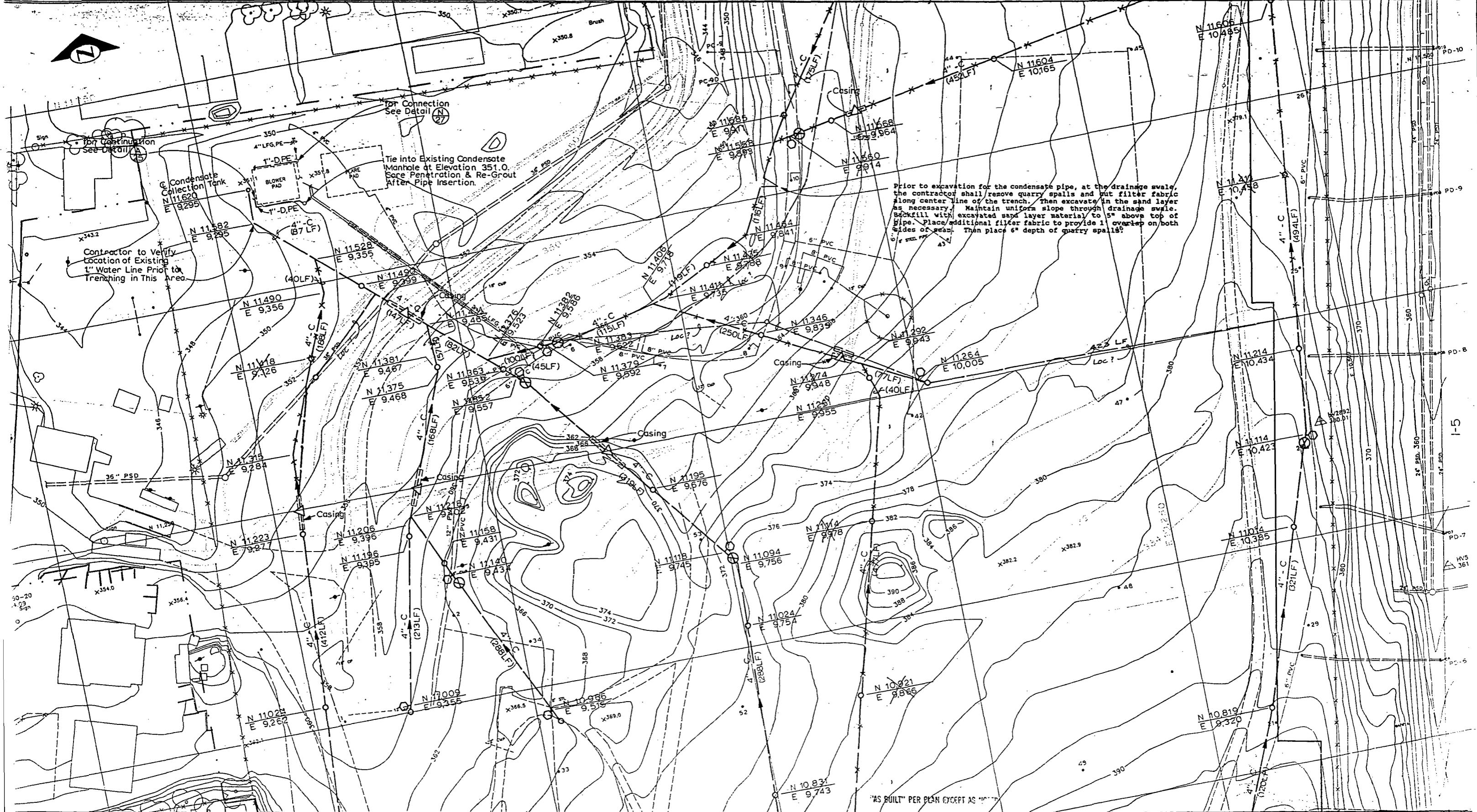
THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
GARY ZARKER, DIRECTOR OF ENGINEERING  
ORDINANCE NO. APPROVED  
FUND:  
SCALE: H. 1' = 50Y. N.A. INSPECTOR'S BOOK

## Condensate Collection Plan Midway Landfill Final Cover System

PC	JOB NO.
R/W	Vault Plan No.
CO	782-177
SHEET 5 OF 30	

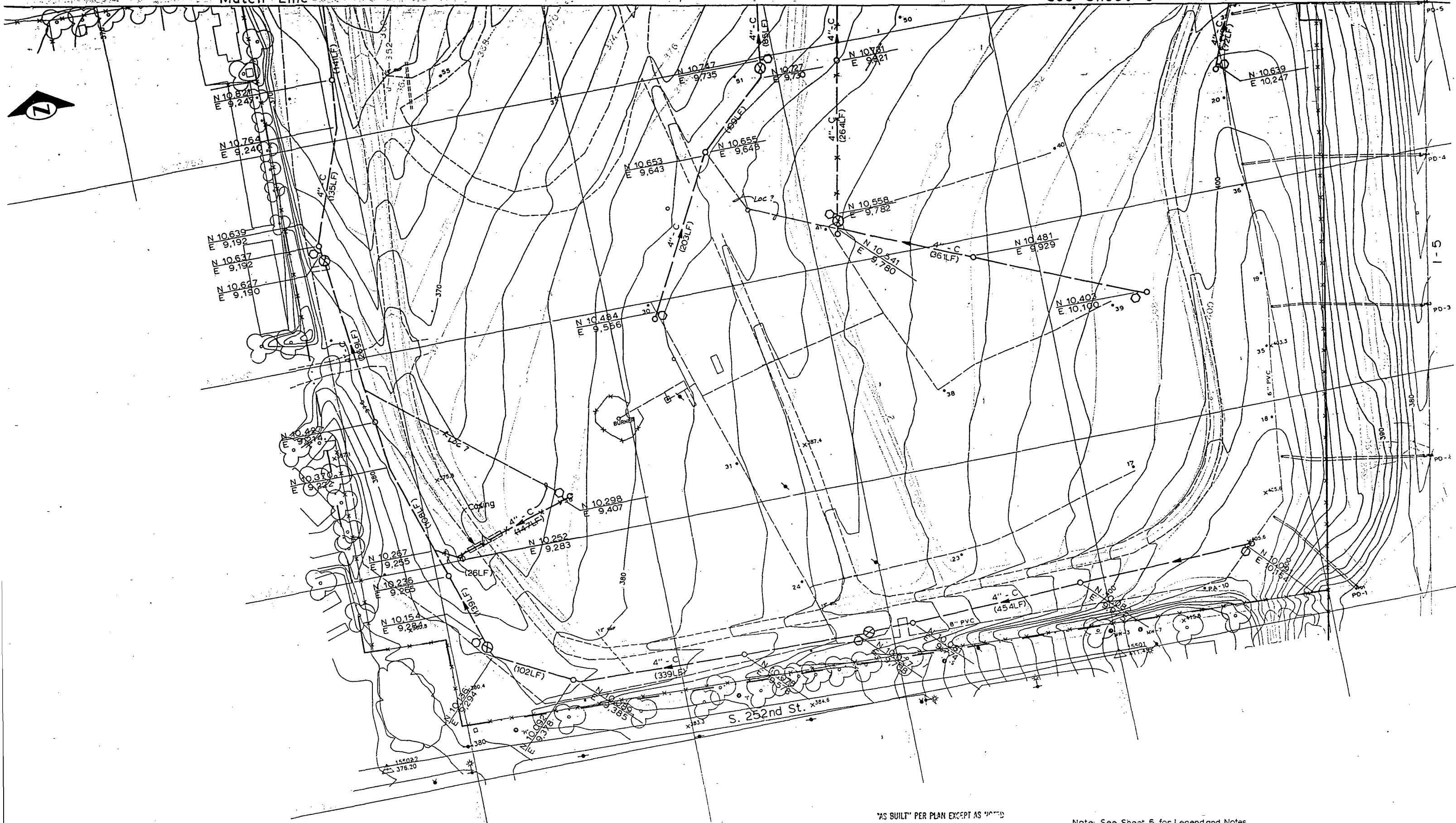
Match Line

See Sheet 5



Match Line

See Sheet 6



'AS BUILT' PER PLAN EXCEPT AS NOTED

Note: See Sheet 5 for Legend and Notes.

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Box 400  
Bellingham 98220  
13020 Northup Way, Suite 8  
Bellingham, Washington 98205  
435-2550

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SEATTLE WASHINGTON 7/28/1989

ATTEST:  
*Barbara K. Teller*  
EXECUTIVE DIRECTOR

NAME OR INITIALS AND DATE		INITIALS AND DATE	
DESIGNED: B. Sullivan	REVIEWED:	CONSTR:	
CHECKED: R. Hines	DES:	TRANS. SVC:	PROJ. MGR: 7/26/87
DRAWN: D. Gulledge, K. Stallman	RECEIVED: D. Sullivan	Const.	
CHECKED: B. Sullivan	Date: 7/26/87		
DESIGN REVIEW: R. Hines	REVISED AS BUILT: 10/14/87		

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
GARY ZARKER, DIRECTOR OF ENGINEERING  
ORDINANCE NO. APPROVED  
FUND: INSPECTOR'S BOOK  
SCALE: H.1"=50' V. N.A.

Condensate Collection Plan  
Midway Landfill  
Final Cover System

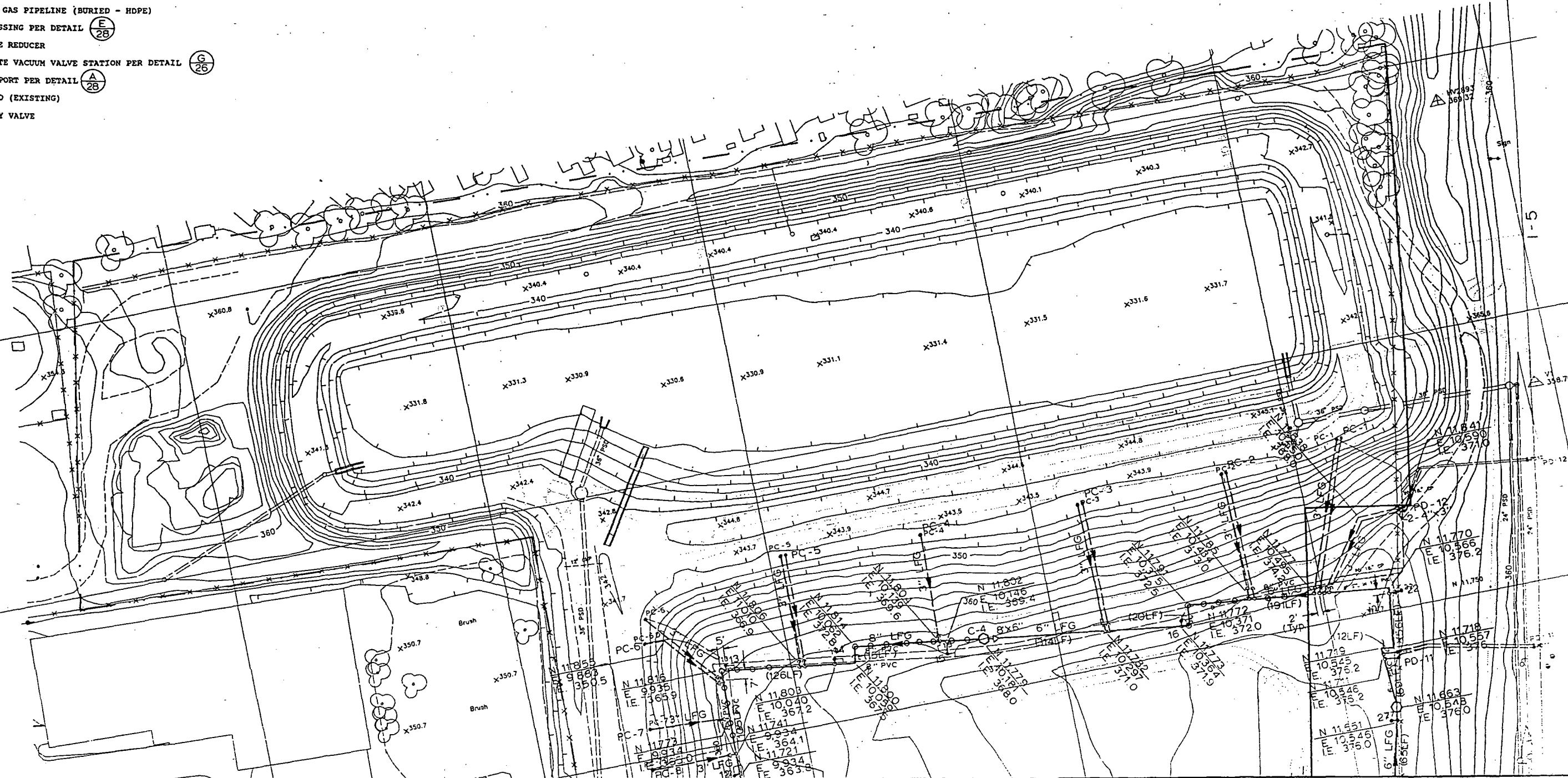
PC	JOB NO
R.W	CO
VAVEL PLAN NO	
782-177	
SHEET	CF 30

GAS COLLECTION NOTES

1. For pipeline to well head connection detail at wells PD-1 through PD-11 see Detail B, Sheet 28.
  2. For pipeline to well head connection detail at wells PC-1 through PC-7, and PC-9 see Detail D Sheet 28.
  3. For pipeline to well head connection detail at wells 1 through 56, PA-3 through PA-10 see Detail C Sheet 28.
  4. For routing of condensate drain line, see Sheets 5, 6 & 7.
  5. Pipeline to maintain consistent slope between one invert elevation and the next.
  6. Contour lines shown are subgrade contours. Final grade contours to be 2'- 0" ± higher at all locations.

### **LEGEND**

<b>8'LFG</b>	LANDFILL GAS PIPELINE (ABOVE GROUND - HDPE)
<b>4"LFG</b>	LANDFILL GAS PIPELINE (BURIED - HDPE)
	ROAD CROSSING PER DETAIL
	LINE SIZE REDUCER
	CONDENSATE VACUUM VALVE STATION PER DETAIL
	PIPE SUPPORT PER DETAIL
	WELL HEAD (EXISTING)
	BUTTERFLY VALVE



Match Line

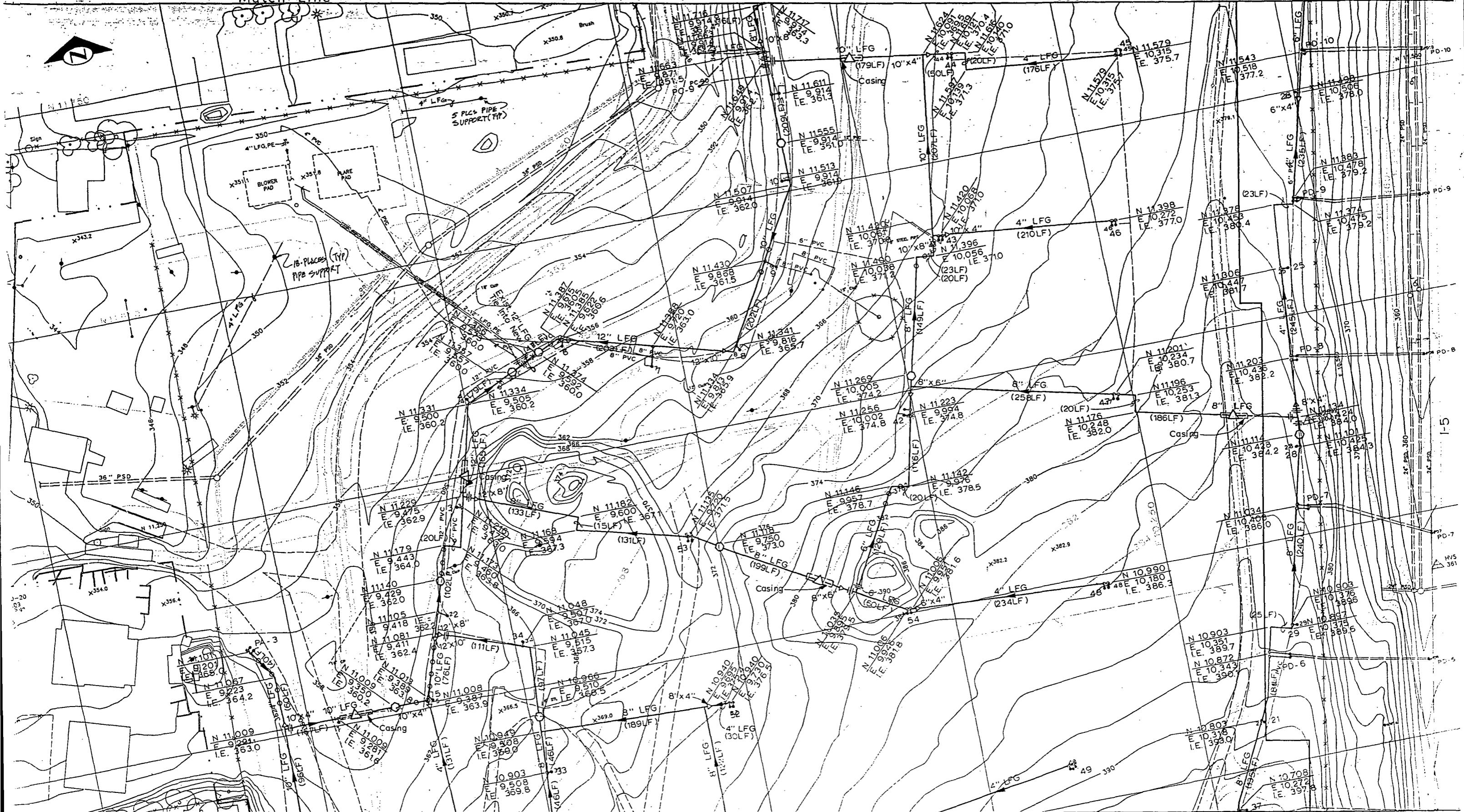
"AS BUILT" PER PLAN EXCEPT AS

See Sheet 9

ametrix, Inc.		APPROVED FOR ADVERTISING BY THE BOARD OF PUBLIC WORKS SEATTLE WASHINGTON 7/28/1989	NAME OR INITIALS AND DATE DESIGNED B. Sullivan..... CHECKED R. Hines.....	INITIALS AND DATE REVIEWED: DES. CONST. TRANS. SVC. PROJ. MGR 7/26/89	THE CITY OF SEATTLE DEPARTMENT OF ENGINEERING GARY ZARKER, DIRECTOR OF ENGINEERING ORDINANCE NO. APPROVED FUND: SCALE: H.T.=50' V. N.A. INSPECTOR'S BOOK	Gas Collection Plan Midway Landfill Final Cover System	PC ..... R/W ..... CO ..... JOB NO. .... VAULT PLAN NO. 782-177 SHEET 8 OF 30
- Box 420 Seattle, Washington 98103 463-1728	12020 Northup Way, Suite 8 Bellevue, Washington 98005 455-2556	ATTEST:  EXECUTIVE DIRECTOR	CHAIRMAN PROJECT NO.	DRAWN B. Gulledge, K. Stellman..... CHECKED B. Sullivan..... DESIGN REVIEW R. Hines.....	RECEIVED Name: Date: 7/26/89 REVISED AS BUILT 7/26/89		
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Match Line

See Sheet 8



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SEATTLE WASHINGTON 7/28/1989

ATTEST:  
*Barbara Y. Peter*  
EXECUTIVE DIRECTOR

CHAIRMAN  
PROJECT NO.

DESIGNER: B. Sullivan  
CHECKED: R. Hines  
DRAWN: B. Guldridge, K. Stallman  
CHECKED: B. Sullivan  
DESIGN REVIEW: R. Hines

REVIEWED: 7/28/89  
DES. CONST.  
TRANS. SVC. PROJ. MGR: 7/28/89  
RECEIVED: Diana Galt 7/28/89  
REVISED AS BUILT ABC 11/04/92

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THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
GARY ZARKER, DIRECTOR OF ENGINEERING

ORDINANCE NO.

FUND:

SCALE: H.T. = 50' N.A.

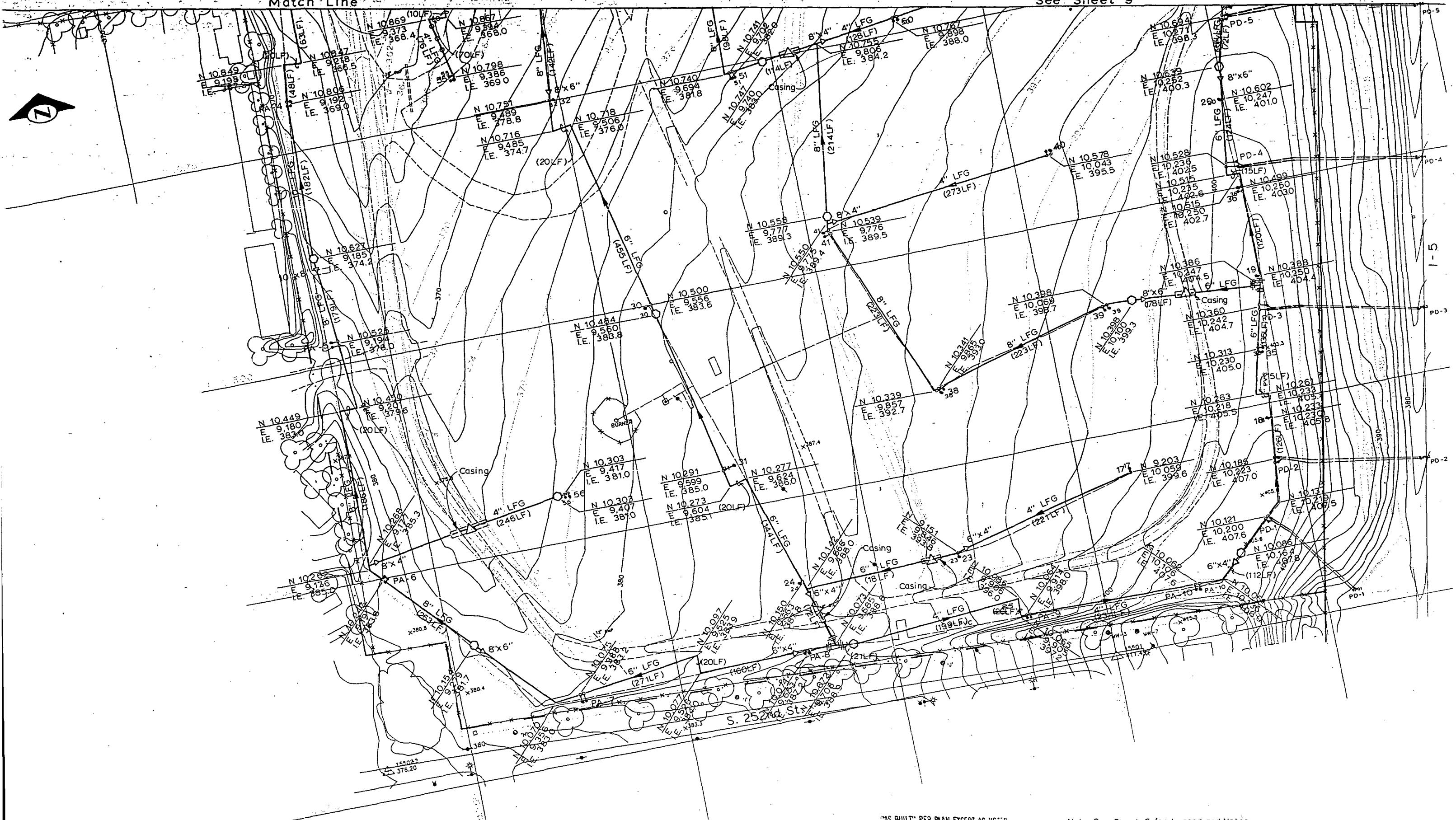
INSPECTOR'S BOOK

## Gas Collection Plan Midway Landfill Final Cover System

JOB NO.	PC
R/W	
CO	
VULT PLAN NO.	782-177
SHEET	9 OF 30

Match Lin

See Sheet 9

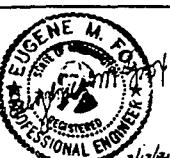


"AS BUILT" PER PLAN EXCEPT AS

Note: See Sheet 8 for Legend and Notes -

**Gas Collection Plan**  
**Midway Landfill**  
**Final Cover System**

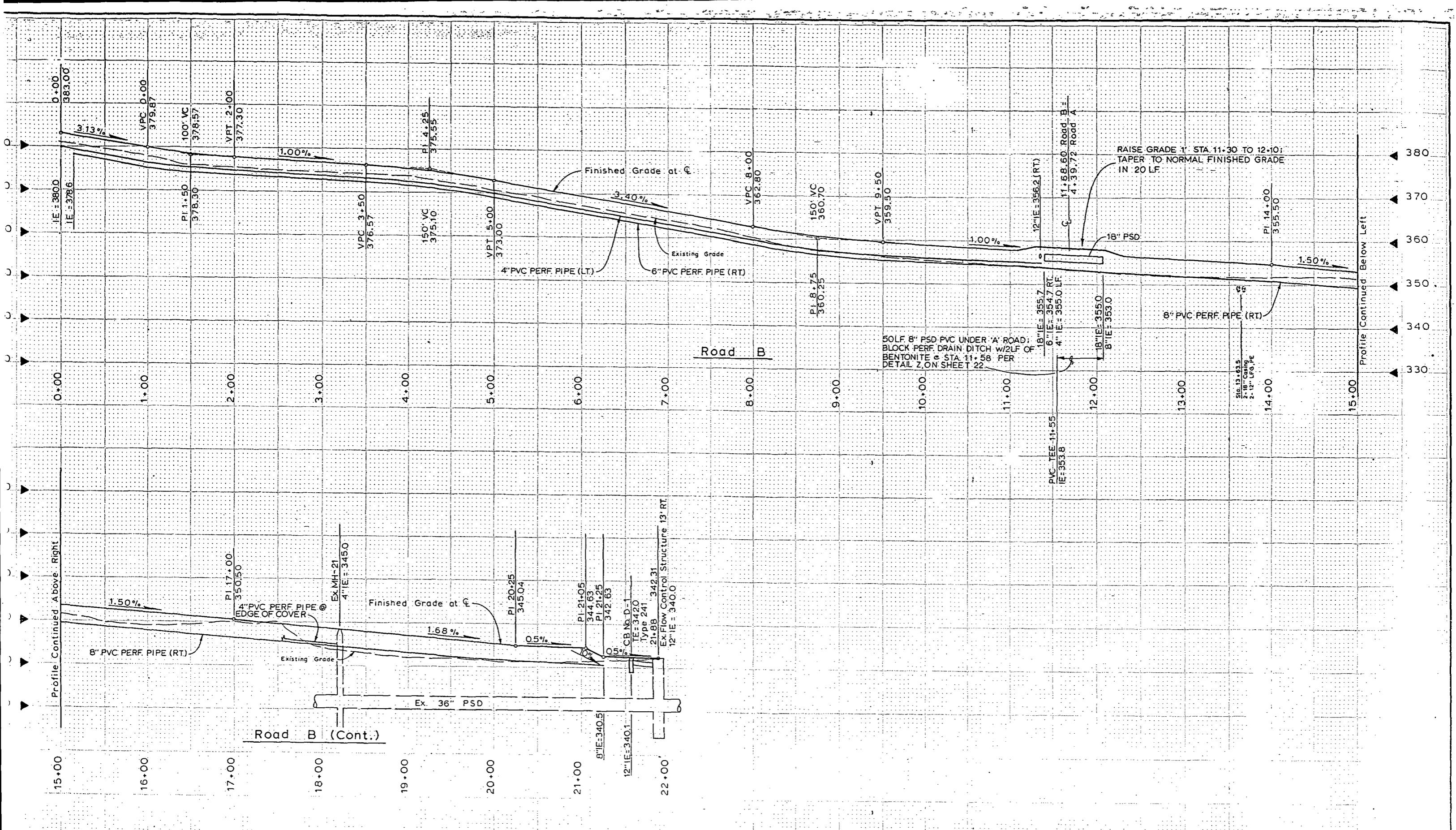
JOB NO.	PC .....
	R/W .....
	CO .....
VAULT PLAN NO.	
782-177	
SHEET 10 OF 30	



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NAME OR INITIALS AND DATE		INITIALS AND DATE	
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CHECKED	R. Hines	DES.	CON
DRAWN	B. Gulledge, K. Stallman	TRANS. SVC.	PRO
CHECKED	B. Sullivan	RECEIVED <i>Design C</i>	
DESIGN REVIEW		REVISED AS BUILT <i>PC</i>	
All work done in accordance with the City of Seattle Standard Plans and Specifications, or the date shown above, and supplemented by Special Provisions.			

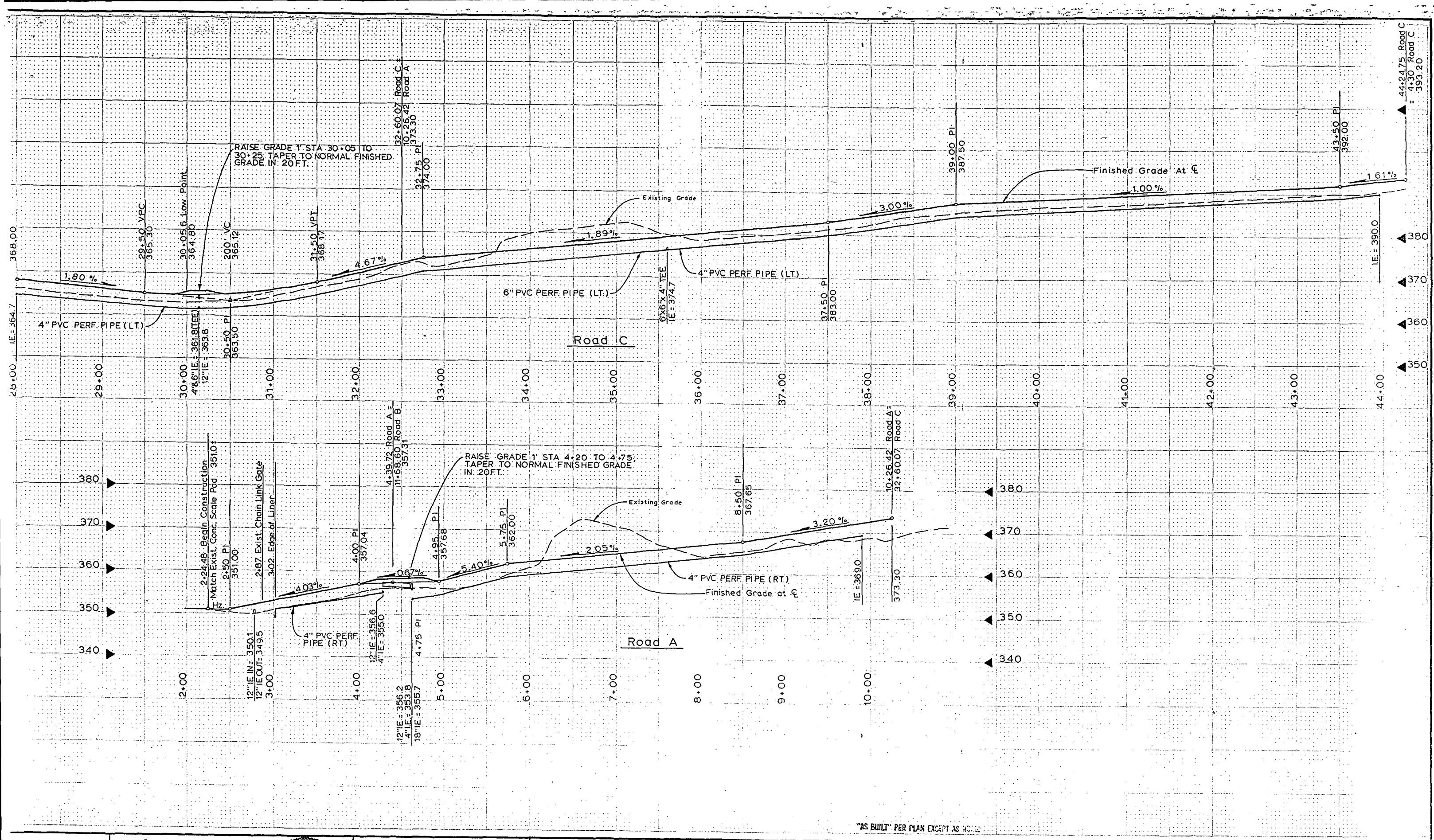
		<p><b>THE CITY OF SEATTLE</b>  <b>DEPARTMENT OF ENGINEERING</b></p> <p><b>GARY ZARKER, DIRECTOR OF ENGINEERING</b></p>
<i>7-26-84</i>  <i>26185</i> <i>14/92</i> <i>TRANS IN</i>	<p>ORDINANCE NO. <span style="float: right;">APPROVED</span></p> <p>FUND:</p> <p>SCALE: H.M.'=50' V. N.A. <span style="float: right;">INSPECTOR'S BLDG.</span></p>	



"AS BUILT" PER PLAN EXCEPT AS NOTED

# Road Profiles Midway Landfill Final Cover System

metrix, Inc.	1302 Northup Way, Suite 8 Bellevue, Washington 98004 J-5129 455-2550	GENE M. FOX 11/28/89 M. FOX 11/28/89	APPROVED FOR ADVERTISING BY THE BOARD OF PUBLIC WORKS SEATTLE WASHINGTON 7/28/1989	NAME OR INITIALS AND DATE DESIGNED G. Dicks., R. Gagnon CHECKED G. Fox .....	INITIALS AND DATE REVIEWED DES. CONST TRANS SVC. PROJ. MORT-25C RECEIVED <i>Drew Gah. 9/26/89</i>		THE CITY OF SEATTLE DEPARTMENT OF ENGINEERING	Road Profiles Midway Landfill Final Cover System	O.N. JOB CO. 782-177 SHEET 11 OF 30
ATTEST: <i>Barbara K. Tabor</i> EXECUTIVE SECRETARY	CHAIRMAN PROJECT NO.	DESIGN REVIEW G. Fox .....	REVISED AS BUILT ABC 11/04/92	ORDINANCE NO. FUND SCALE: H. 1" = 50' V. 1" = 10' INSPECTOR'S BOOK NO.	APPROVED				
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CHECKED .. G. Fox ..  
DRAWN .... K. Stalman ..  
CHECKED .. G. Fox ..  
MAN  
NO.  
DESIGN REVIEW .. G. Fox ..  
All work done in accordance with the C.I. Allocated drawing reference

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REVIEWED:	
DES.	CONST.
TRANS. SVC.	PROJ. MGR. <i>John G. B. C.</i>
RECEIVED	<i>July 31/81</i>
REVISED AS BUILT	<i>Dec 19/81</i>

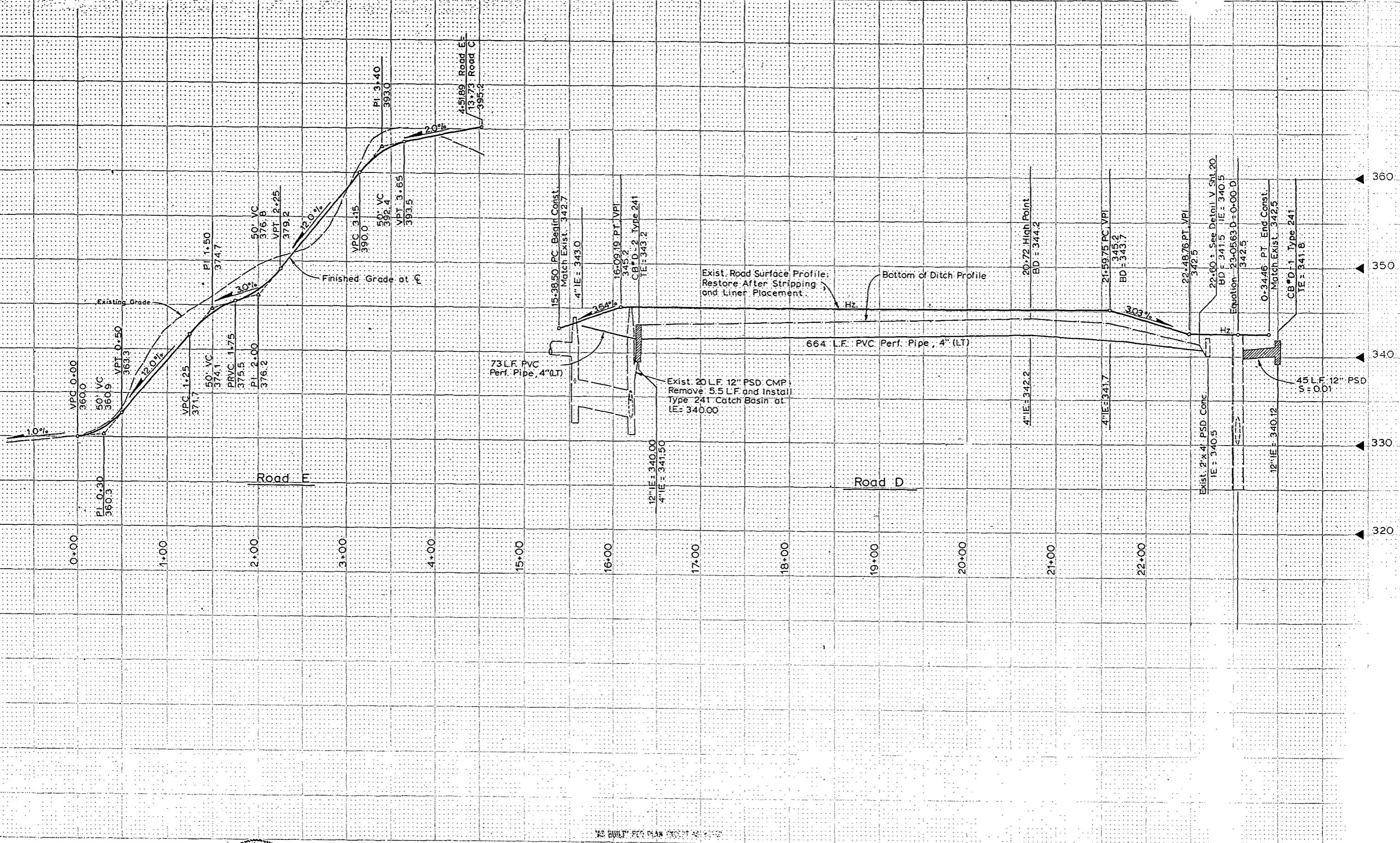
of Sectional Standard Plans and Specifications in

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING

## Road Profiles

## Midway Landfill Final Cover System

JOB NO.	PC.....		
	R/W.....		
	CO.....		
782-177			
SHEET	12	of	30

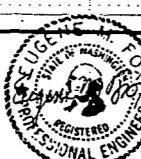


"AS BUILT" SEE DRAWINGS

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301-460-  
Washington 98030  
63-5173

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SEATTLE WASHINGTON *7/12*

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Barbara J. Tolson  
EXECUTIVE SECRETARY

2

110

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DESIGNED G. Dicks  
CHECKED G. Fox  
DRAWN K. Stullman  
CHECKED G. Fox  
DESIGN REVIEW G. Fox  
All work done in accordance with the  
specifications

ATE	INITIALS AND DATE
REVIEWED:	
DES.	CONST.
TRANS SVC.	PROJ. MGR 7/26/85
RECEIVED	Dane Galt 7/26/85
REVISED AS BUILT	11/14/85 ABC

City of Seattle Standard Plans and Specifications

THE CITY OF SEATTLE

INANCIE NO. APPROVED  
D: .  
E: H: 1' = 50' v. T' = 5' INSPECTOR'S BOOK NO.

# Road Profiles

## Midway Landfill Final Cover System

JOB NO.	PC.....
	R/W.....
	CO.....
782-177	
SHEET	13
CF 3	



netrix, Inc.

1400  
13020 Northup Way, Suite 8  
Bellevue, Washington 98005  
455-2550



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ATTEST:  
*Barbara T. Jahn*  
EXECUTIVE SECRETARY

PROJECT NO.

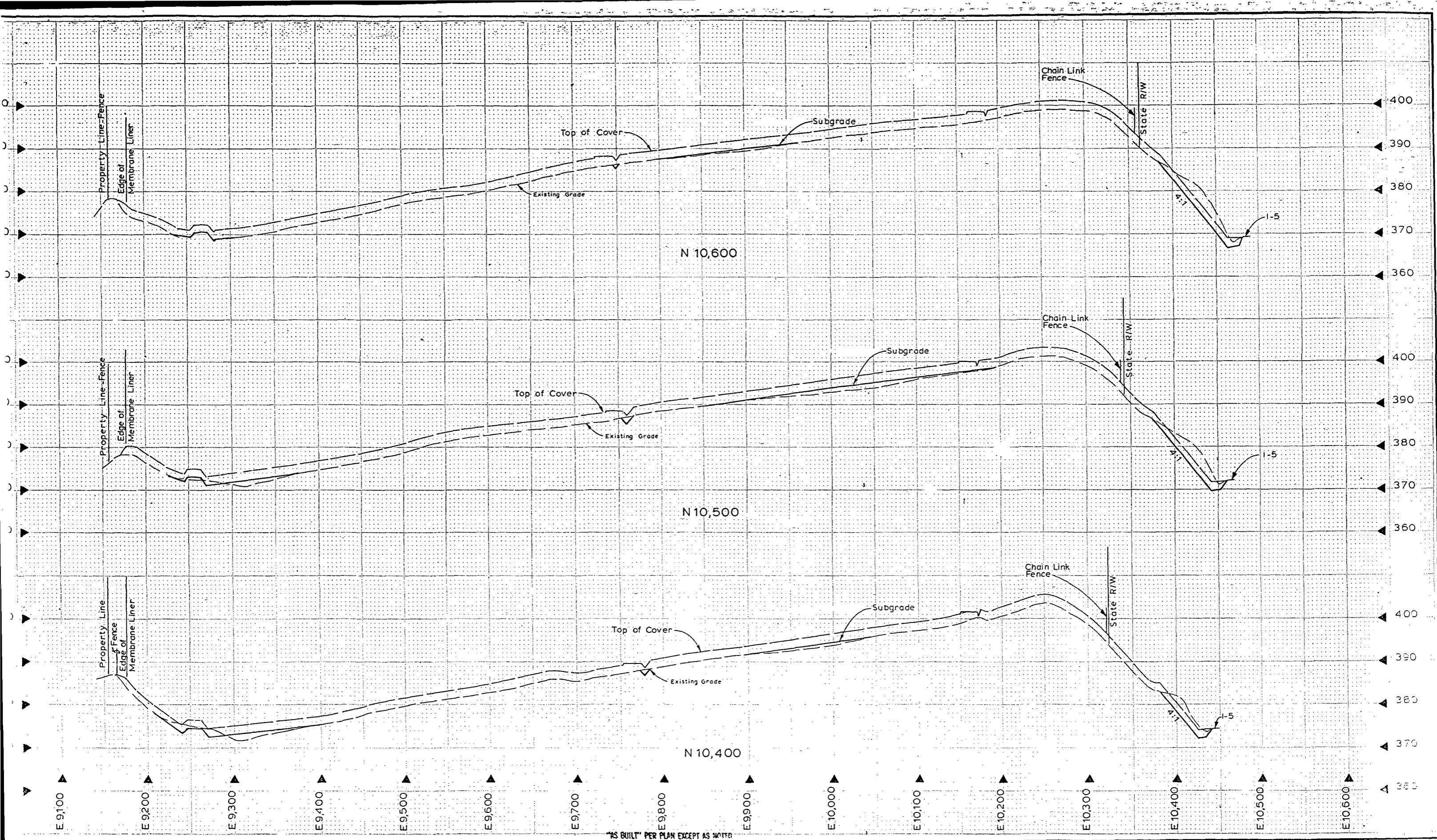
NAME OR INITIALS AND DATE  
DESIGNED: B. Guldge  
CHECKED: G. Fox  
DRAWN: B. Guldge  
CHECKED: G. Fox  
DESIGN REVIEW: G. Fox  
REVIEWED: G. Fox  
DES...  
CONSTR.  
TRANS. SVC.  
RECEIVED: Drawn 7/28/89  
REVISED AS BUILT: NOV 4/92 ABC

INITIALS AND DATE  
DES...  
CONSTR.  
PROJ. MGR/28/89  
RECEIVED: Drawn 7/28/89  
REVISED AS BUILT: NOV 4/92 ABC

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. APPROVED  
FUND: INSPECTOR'S BOOK NO.

X-Sections  
Midway Landfill  
Final Cover System

JOB NO. PC...  
R/W...  
CO...  
782-177  
SHEET 14 c: 30



"AS BUILT" PER PLAN EXCEPT AS NOTED



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BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON ..... 7/25

NAME OR INITIALS AND DATE		INITIALS AND DATE	
DESIGNED ..	B. Guleidge	REVIEWED ..	
CHECKED ..	G. FOX ..	DES ..	CONST
DRAWN ..	B. Guleidge ..	TRANS SVC	PROJ. MGR. 7/26/87 C
CHECKED ..	G. FOX ..	RECEIVED	Dane, July 27/87
DESIGN REVIEW ..	G. FOX ..	REVISED AS BUILT	11/4/92 ..
An work done in accordance with the City of Seattle Standard Plans and Specifications as affected on the date shown above, proj. number _____, for Spec. #_____.			

THE CITY OF SEATTLE

## DEPARTMENT OF ENGINEERING

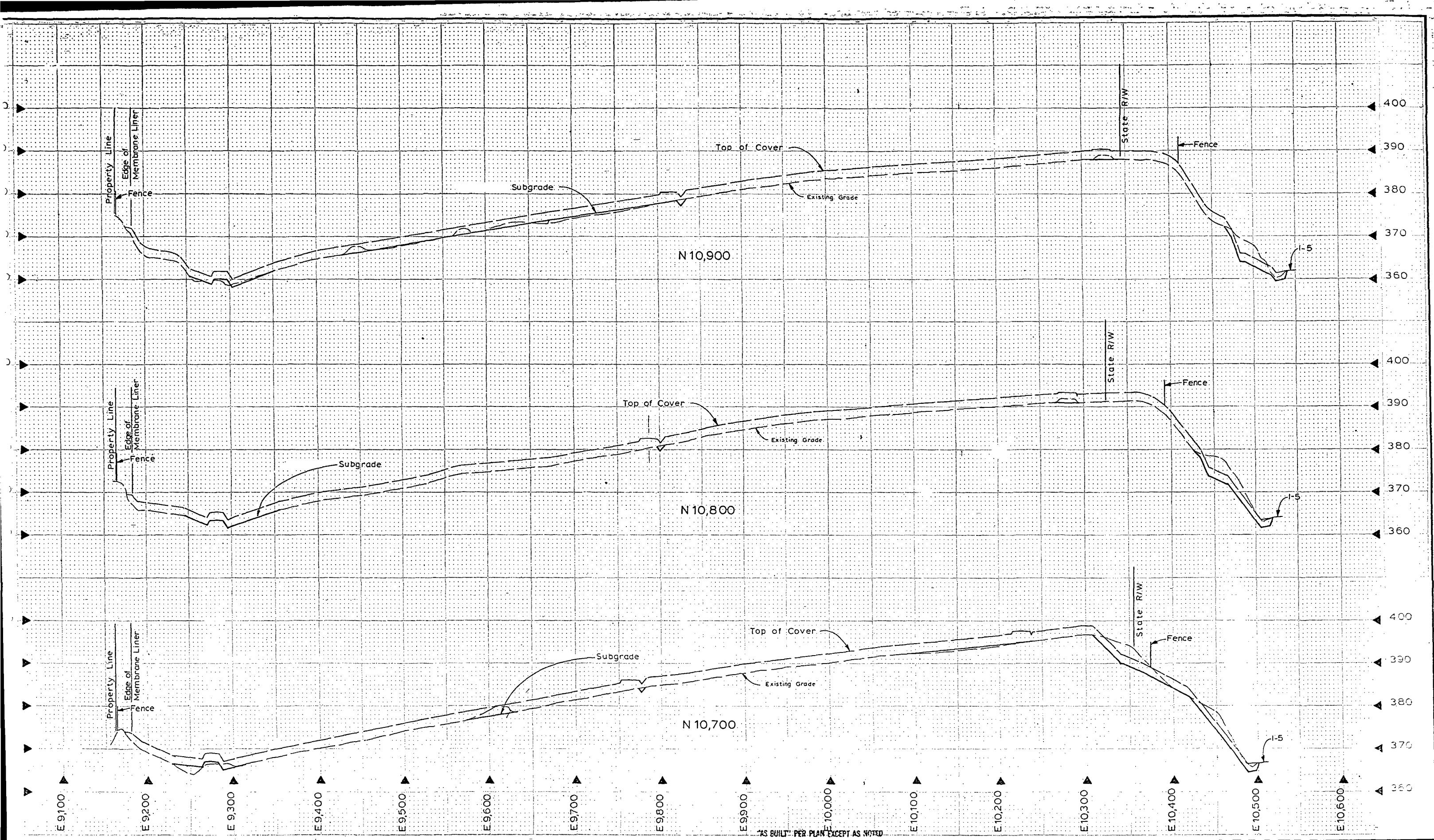
APPROVED

# X-Sections Midway Landfill Final Cover System

PC.....  
R/W.....  
CO.....

782-177

HEET 15 CF 30



metrix, Inc.  
15020 Normandy Way, Suite 8  
Seattle Washington 98133  
36128 455-2550

APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON 2/29/1999  
TEST: *Barbara J. Tidwell*  
EXECUTIVE SECRETARY

NE M  
Metrix, Inc.  
15020 Normandy Way, Suite 8  
Seattle Washington 98133  
36128 455-2550



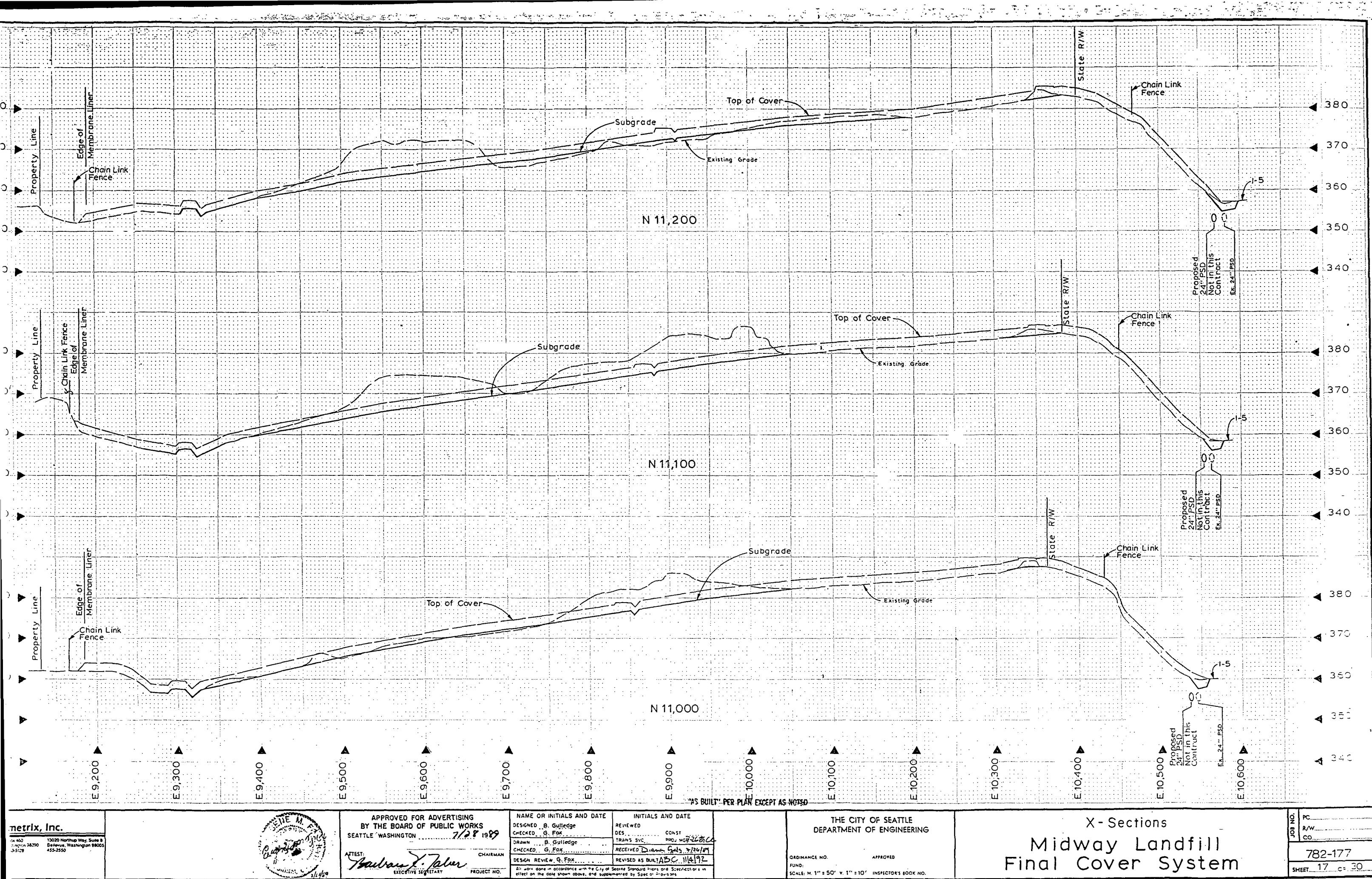
APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON 2/29/1999  
TEST: *Barbara J. Tidwell*  
EXECUTIVE SECRETARY

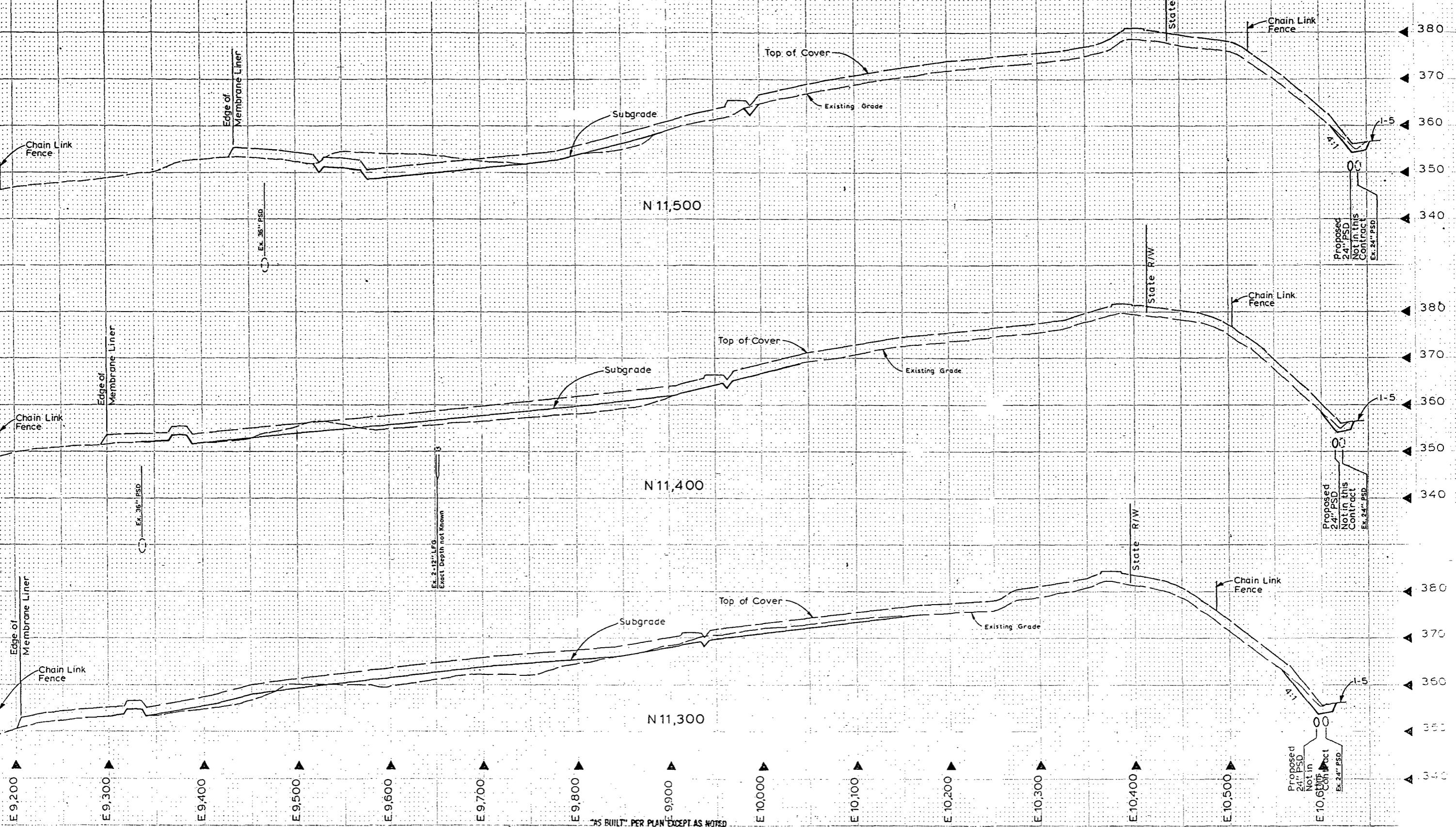
NAME OR INITIALS AND DATE  
DESIGNED B. Gulledge  
CHECKED G. Fox  
DRAWN B. Gulledge  
CHECKED G. Fox  
DESIGN REVIEW G. Fox  
INITIALS AND DATE  
REVIEWED  
DES. CONST.  
TRANS SVC.  
RECEIVED *Dana Cade* 3/26/99  
REVISED AS BUILT ABC 11/4/99

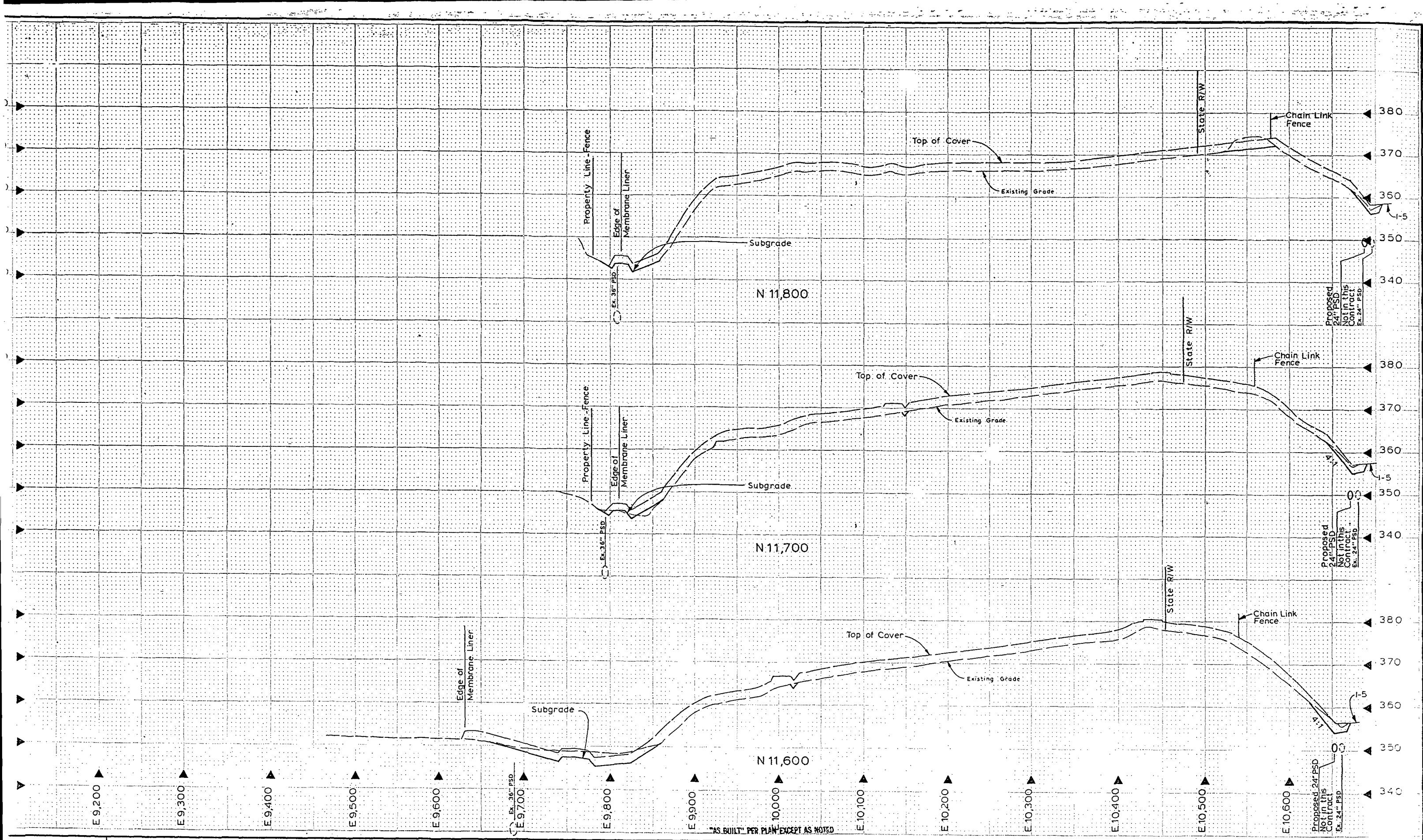
CHAIRMAN  
PROJECT NO.  
ALL work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
ORDINANCE NO. *100-1000*  
FUND: *100-1000*  
SCALE: H. 1" = 50' V. 1" = 10'  
INSPECTOR'S BOOK NO. *100-1000*

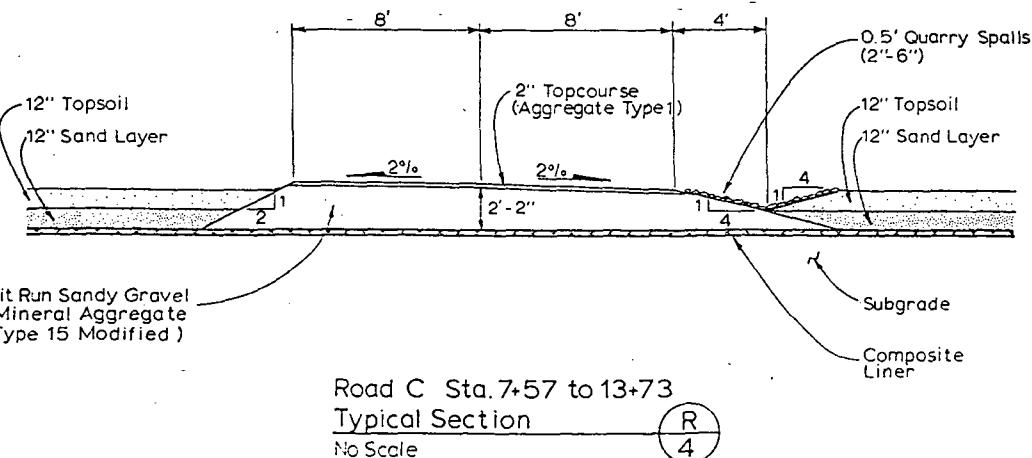
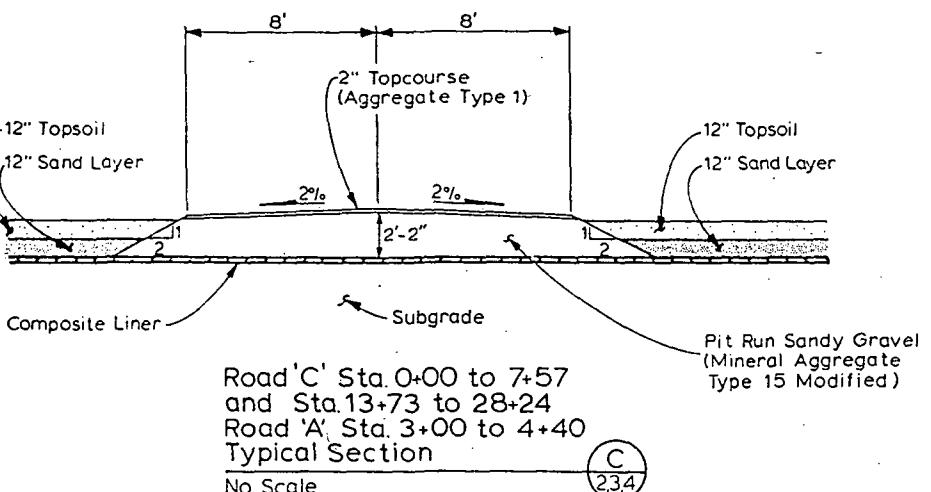
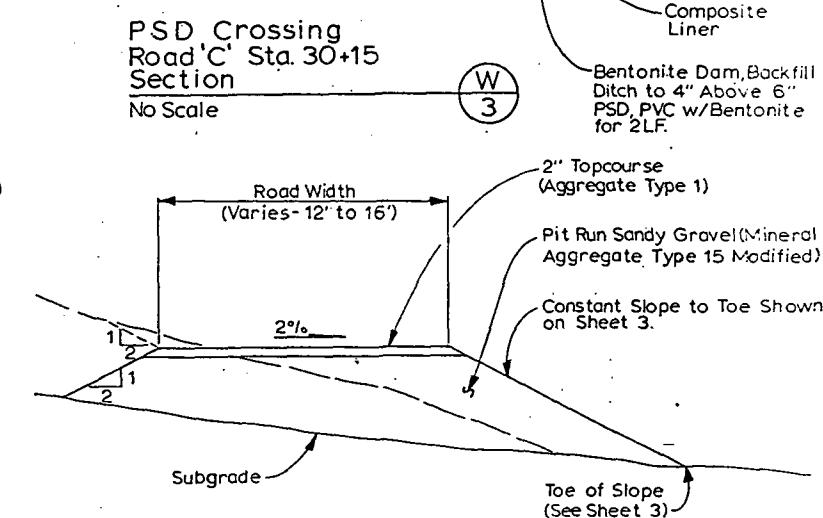
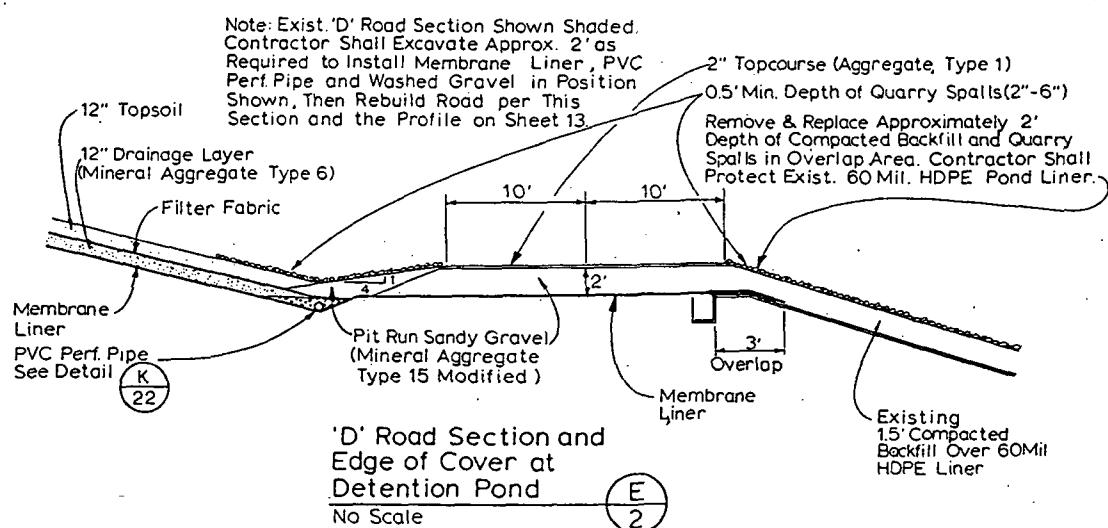
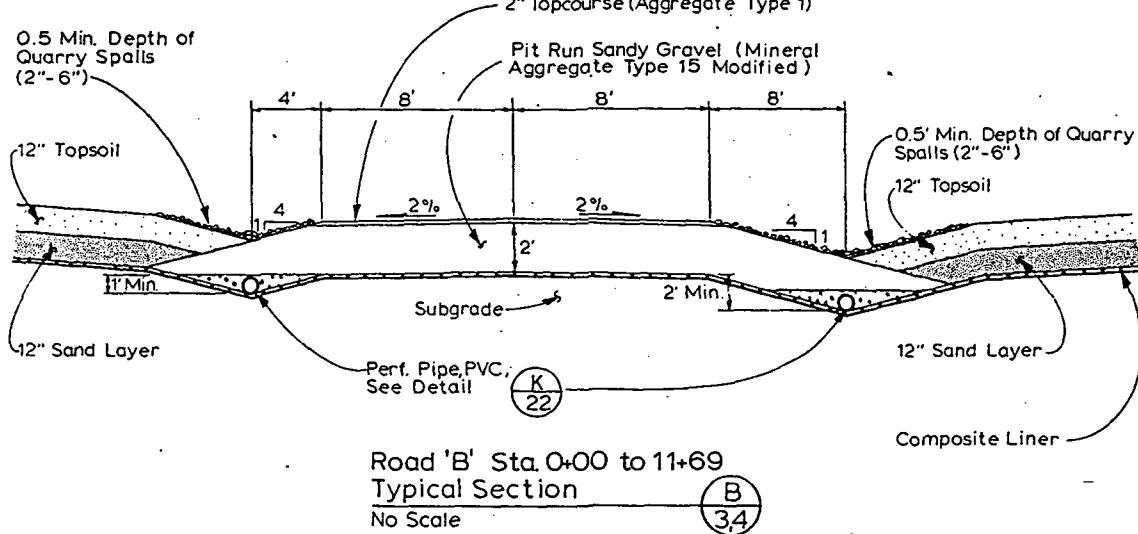
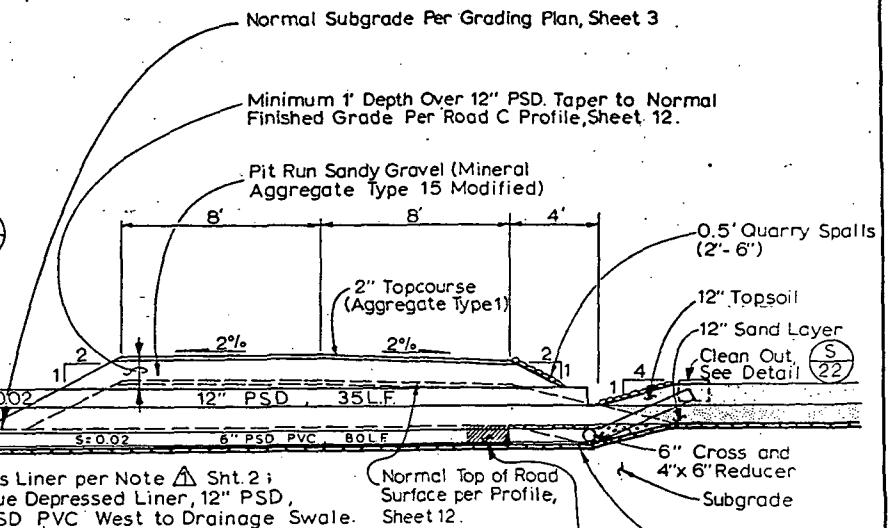
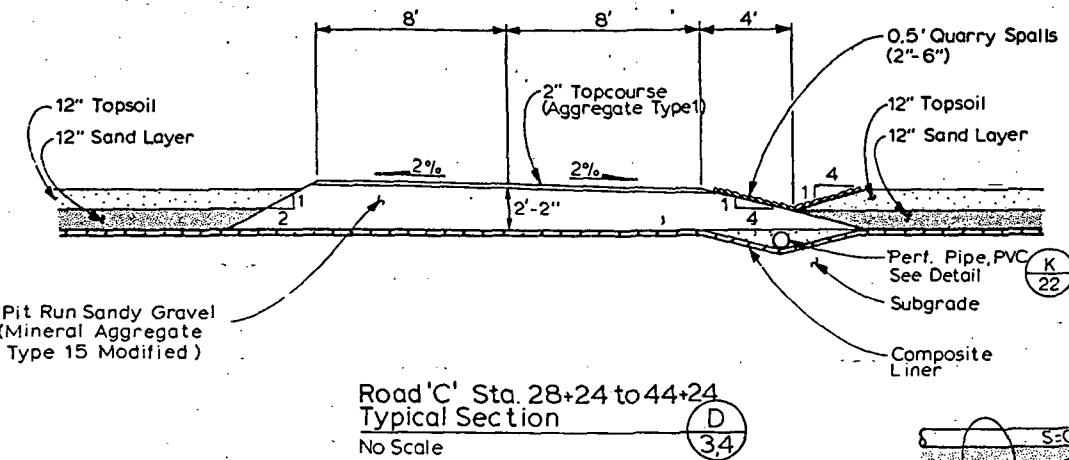
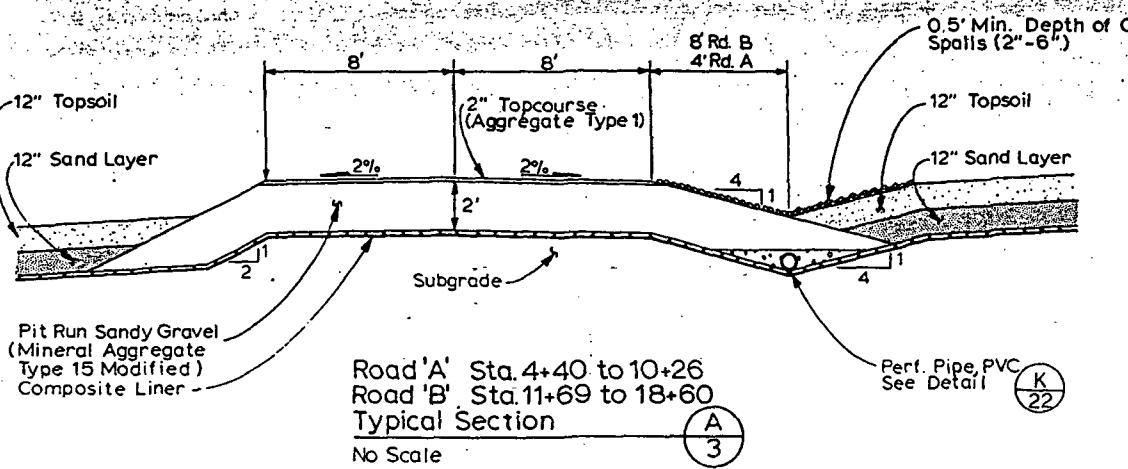
X-Sections  
Midway Landfill  
Final Cover System  
PC  
R/W  
CO  
782-177  
SHEET 16 OF 30







Metrix, Inc. 1401 Northup Way, Suite 8 Bellevue, Washington 98005 425-2550	APPROVED FOR ADVERTISING BY THE BOARD OF PUBLIC WORKS SEATTLE WASHINGTON 7/28/89 ATTEST: <i>Pauline Y. Teller</i> EXECUTIVE SECRETARY	NAME OR INITIALS AND DATE DESIGNED: B. Gullidge CHECKED: G. Fox DRAWN: B. Gullidge CHECKED: G. Fox DESIGN REVIEW: G. Fox	INITIALS AND DATE REVIEWED: DES. .... CONST. .... TRANS. SVC. .... PROJ. MGR. .... RECEIVED: Drawn Sept. 3/4/89 REVISED AS BUILT ABC 11/4/92	THE CITY OF SEATTLE DEPARTMENT OF ENGINEERING ORDINANCE NO. .... APPROVED FUND: .... SCALE: H. 1" = 50' V. 1" = 10' INSPECTOR'S BOOK NO. ....	PC
					R/W. CO.
X-Sections Midway Landfill Final Cover System					JOB NO. 782-177 SHEET 19 c= 30



Note:  
Depth of Mineral Aggregate Type 15 Modified Varies on Road 'A' Per Road Profile on Sheet 12. Slope Up from Edge of Road at 2H:1V to Top of Topsoil Layer Where Necessary.

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netrix, Inc.



APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON 7/08/99  
ATTEST: *Stephen J. Taler*  
EXECUTIVE DIRECTOR PROJECT NO. 131131

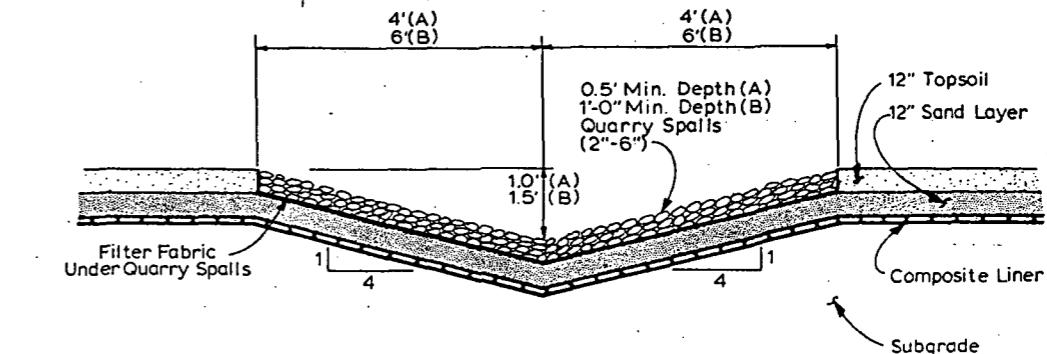
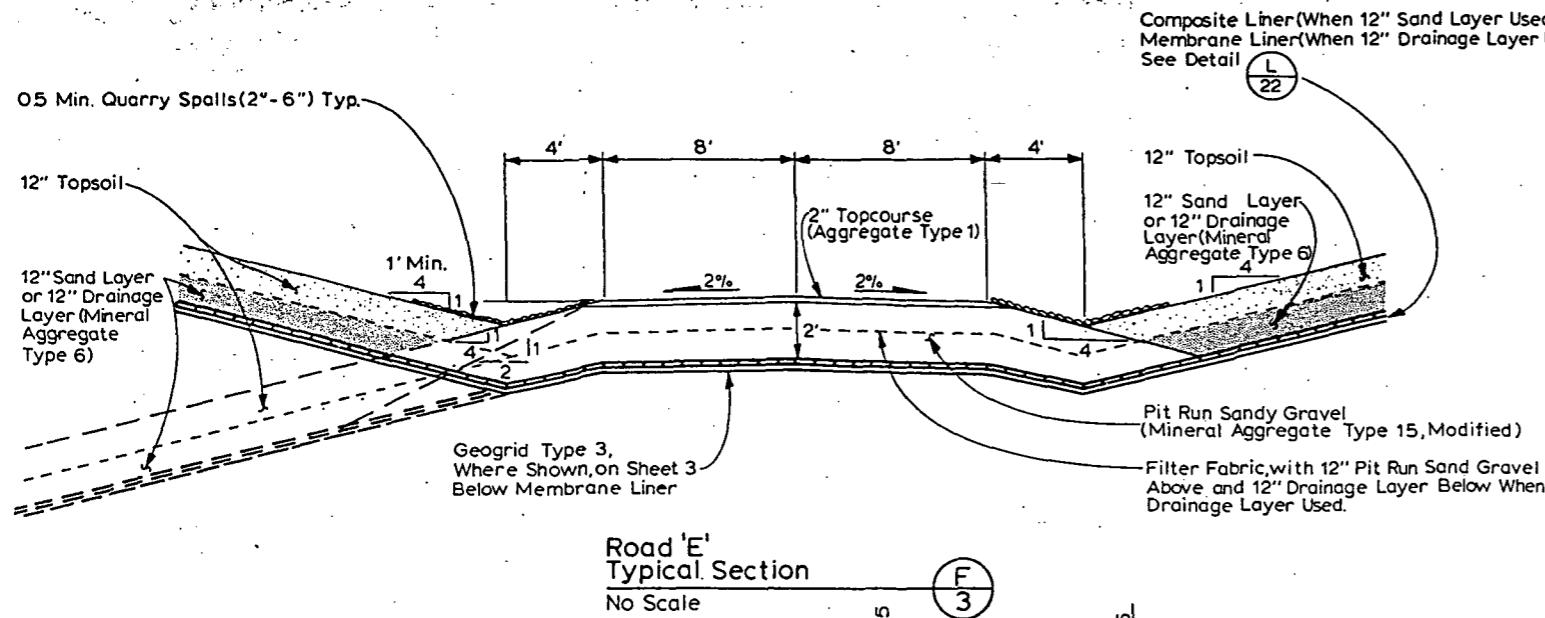
NAME OR INITIALS AND DATE  
DESIGNED G. Dicks  
CHECKED G. Fox  
DRAWN B. Gullidge  
TRANS. S/C PROJ: MGR7-2-S/C  
CHECKED G. Fox  
RECEIVED *David Galt* 3/16/99  
DESIGN REVIEW G. Fox  
REVISED AS BUILT ABC 11/1992  
All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Spec. o. Powers

INITIALS AND DATE  
REVIEWED  
DES  
TRANS. S/C  
CONST.  
PROJ: MGR7-2-S/C  
RECEIVED *David Galt* 3/16/99  
REVISED AS BUILT ABC 11/1992  
INSPECTOR'S BOOK

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
GARY ZARKER, DIRECTOR OF ENGINEERING  
ORDINANCE NO.  
FUND  
SCALE H As Noted  
APPROVED  
INSPECTOR'S BOOK

Grading, Drainage & Cover Details  
Midway Landfill  
Final Cover System

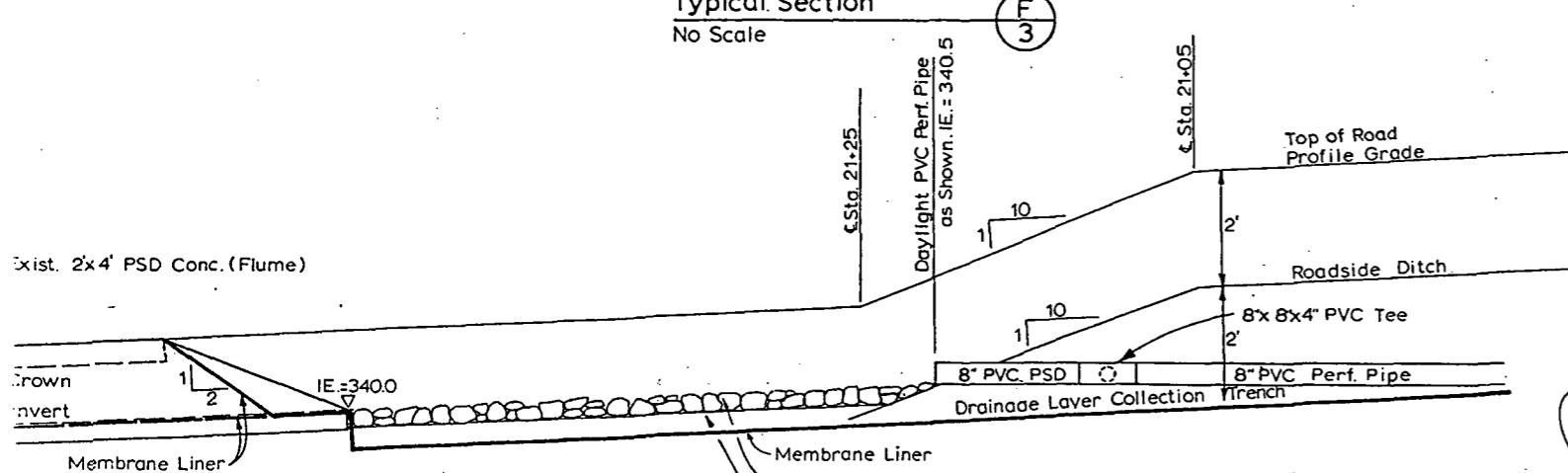
O PC  
JOB R/W  
CO  
VAULT PLAN NO  
782-177  
SHEET 20 OF 30



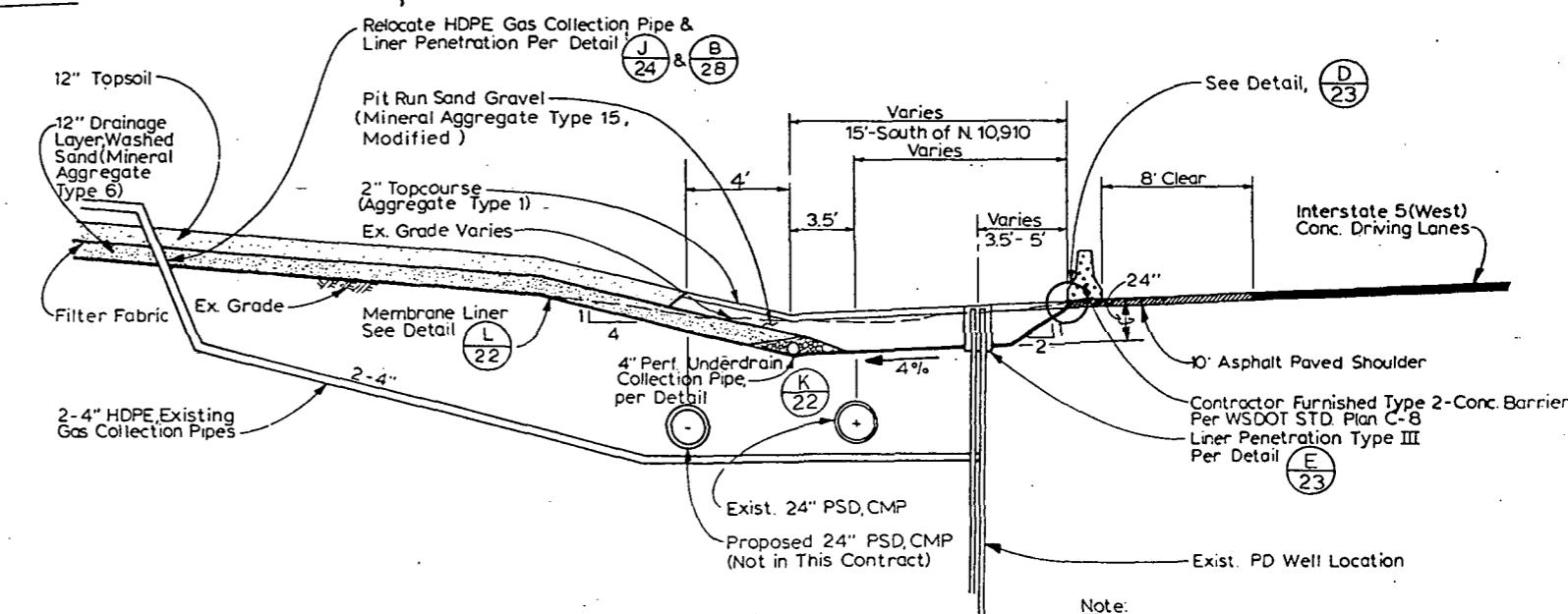
## Drainage Swale Typical Section

No. Scale

Swale 'A' is Located S.E. of Road 'E'  
Swale 'B' is Located Between Roads 'B' & 'C'



Road B Ditch Near Flume  
and Type IV Liner Penetratio

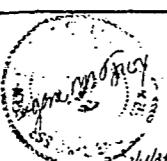


West Side of I-5  
Typical Section

Existing and Proposed 24" PSD Included  
Only Where Shown on Plan Sheets 2 & 3.

Road 'B' Sta. 21+23 to 21+60  
Typical Section U

"AS BUILT" PER PLAN EXCEPT AS NOTED



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BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON 7/28/1983

NAME OR INITIALS AND DATE		INITIALS AND DATE	
DESIGNED	G. Dicks	REVIEWED	
CHECKED	G. Fox	DES.	CONST.
DRAWN	B. Gulledge	TRANS. SVC.	PROJ MGR 7-28/81
CHECKED	G. Fox	RECEIVED	Diane Gads 7-26-84
DESIGN REVIEW	G. Fox	REVISED AS BUILT	ABC 11/14/92
All work done in accordance with the City of Seattle Standard Plans and Specifications in			

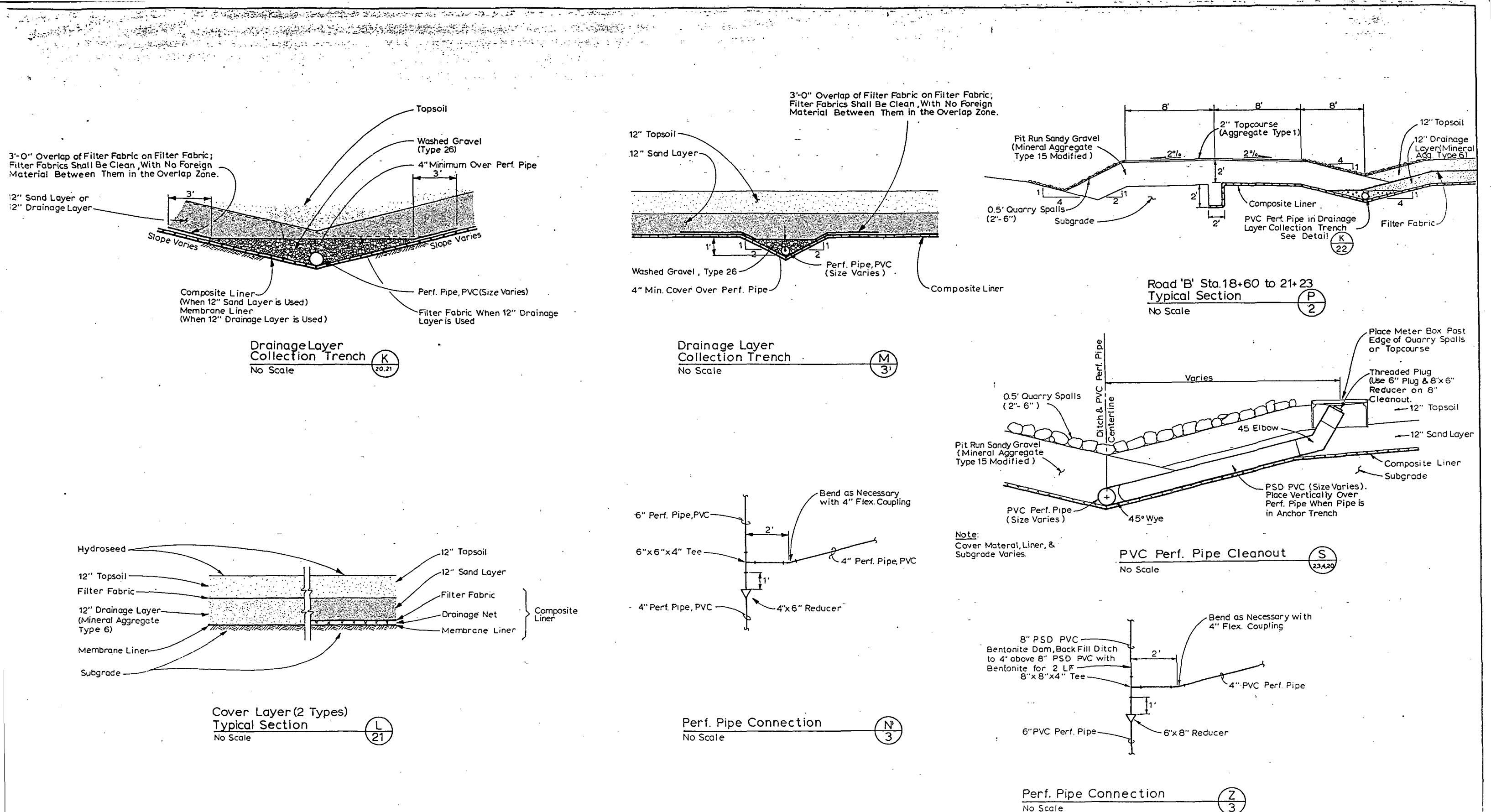
**THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING**

**GARY ZARKER, DIRECTOR OF ENGINEERING**

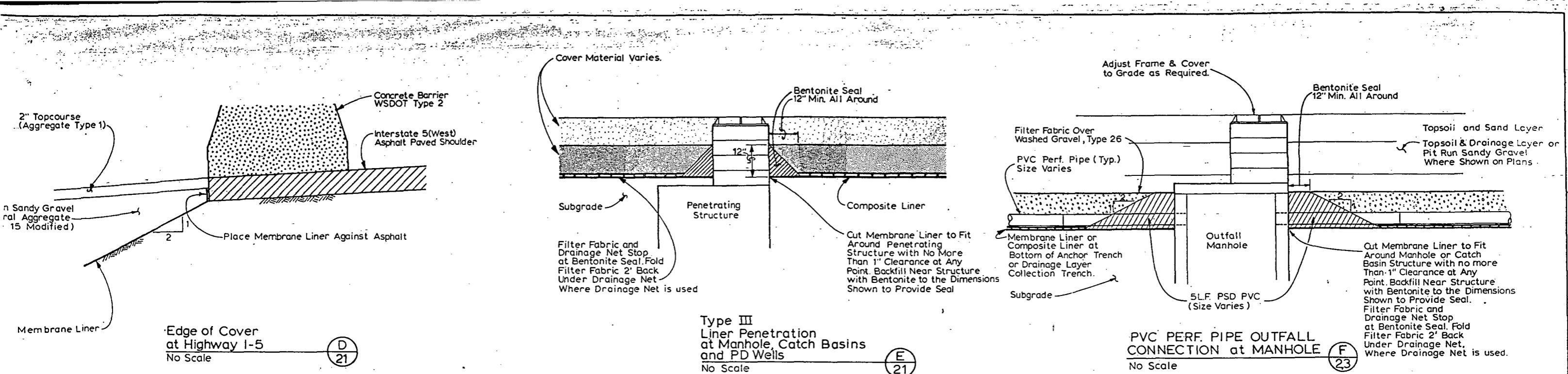
## Grading, Drainage & Cover Details

### Midway Landfill Final Cover System

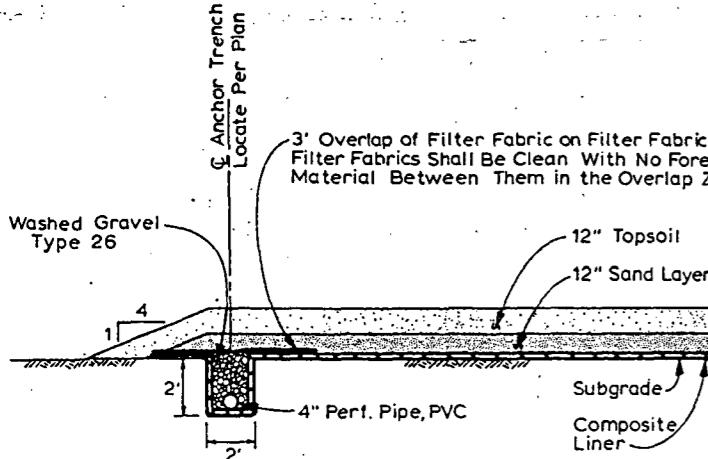
JOB NO.	PC .....
	R/W .....
	CO .....
VAULT PLAN NO	
<b>782-177</b>	
SHEET	21
CF 30	



metrix, Inc.	APPROVED FOR ADVERTISING BY THE BOARD OF PUBLIC WORKS SEATTLE WASHINGTON 7/28/1989	NAME OR INITIALS AND DATE DESIGNED G. Dicks CHECKED G. Fox DRAWN B. Gulledge CHECKED G. Fox DESIGN REVIEW G. Fox ATTEST: <i>Barbara J. Weber</i> CHAIRMAN EXECUTIVE DIRECTOR PROJECT NO.	INITIALS AND DATE REVIEWED DES. CONST. TRANS. SVC. PROJ. MGR. 7/28/89 RECEIVED Drawn G. J. 7/28/89 REVISED AS BUILT 7/28/89	THE CITY OF SEATTLE DEPARTMENT OF ENGINEERING GARY ZARKER, DIRECTOR OF ENGINEERING ORDINANCE NO. APPROVED FUND. SCALE H As Noted INSPECTOR'S BOOK	Grading, Drainage & Cover Details Midway Landfill Final Cover System	PC R.W. CO VULT PLAN NO 782-177 SHEET 22 OF 30
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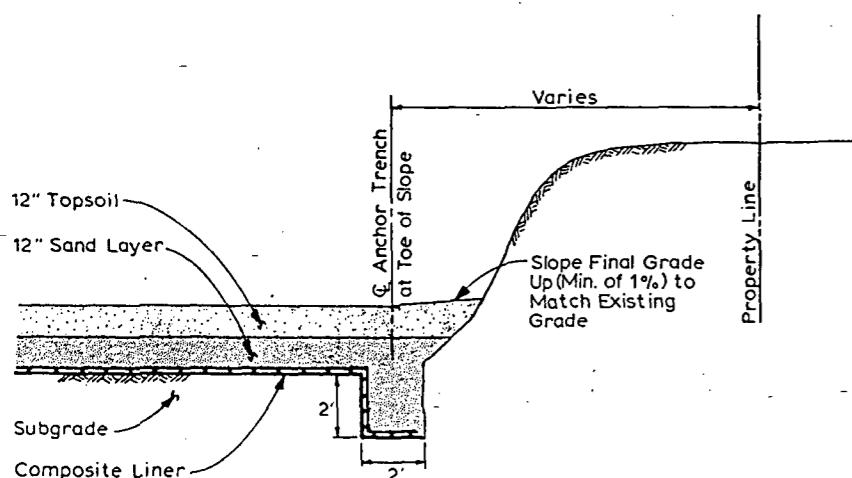
metrix, Inc.	APPROVED FOR ADVERTISING BY THE BOARD OF PUBLIC WORKS SEATTLE WASHINGTON 7/28/1988 <i>Barbara J. Tabor</i> ATTEST: <i>Barbara J. Tabor</i> EXECUTIVE DIRECTOR	NAME OR INITIALS AND DATE DESIGNED G. Dicks..... CHECKED G. Fox..... DRAWN B. Gulledge..... CHECKED G. Fox..... DESIGN REVIEW G. Fox..... PROJECT NO. 782-177	INITIALS AND DATE REVIEWED DES CONST. TRANS SYC PROJ MGR 72557C RECEIVED <i>David Gots</i> 3/26/1985 REVISED AS BUILT <i>APC 11/09/92</i>	THE CITY OF SEATTLE DEPARTMENT OF ENGINEERING GARY ZARKER, DIRECTOR OF ENGINEERING ORDINANCE NO. APPROVED FUND. <i>APC</i> SCALE H As Noted INSPECTOR'S BOOK	Liner Connection Details Midway Landfill Final Cover System	PC _____ R/W _____ JOB _____ VAULT PLAN NO. 782-177 SHEET 23 OF 30
NOT SHOWN PER PLAN EXCEPT AS NOTED						
All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Specific Provisions						



Edge of Cover Along  
Portions of West Property Line

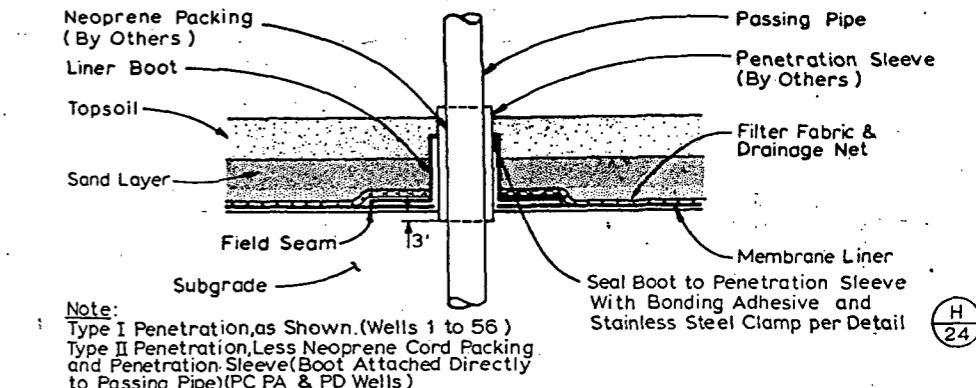
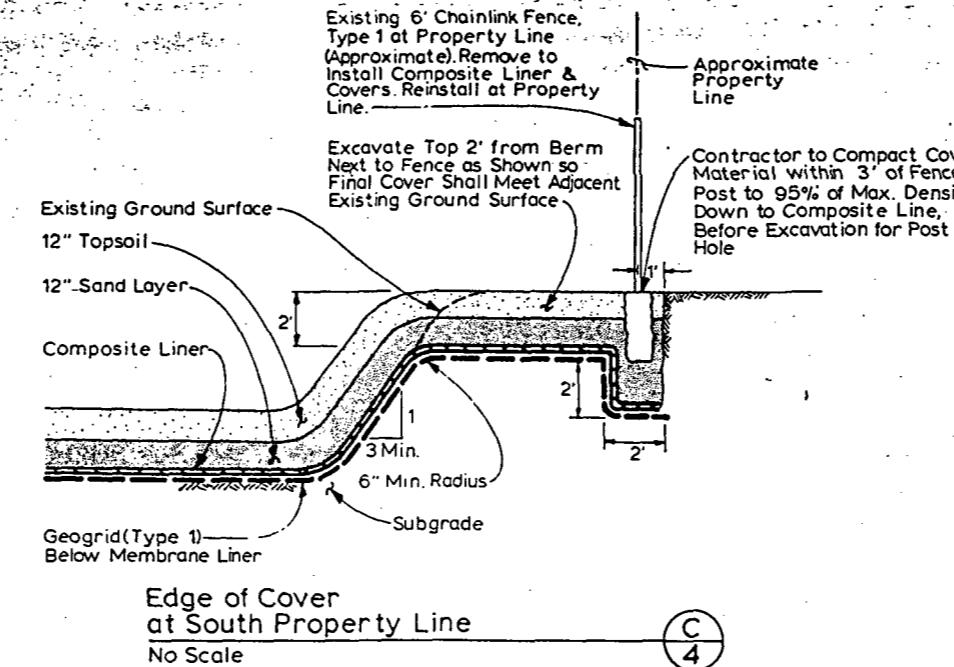
No Scale

Note: PVC Perf. Pipe , Washed Rock , & Filter Fabric  
in Anchor Trench Only Along Perf. Pipe Route  
as Shown on Plan(Sheet 3).

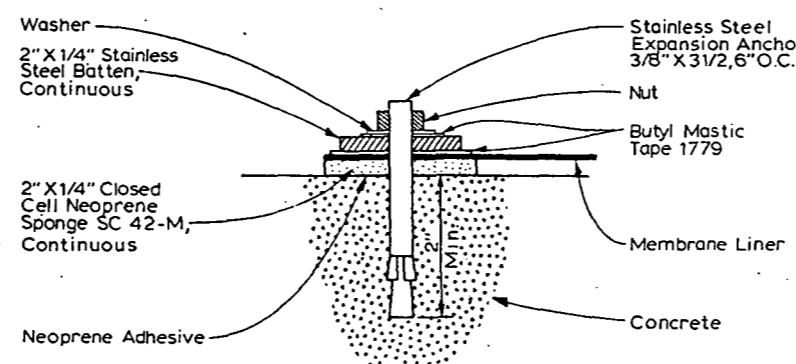


**Edge of Cover Along  
Portions of West Property Line**

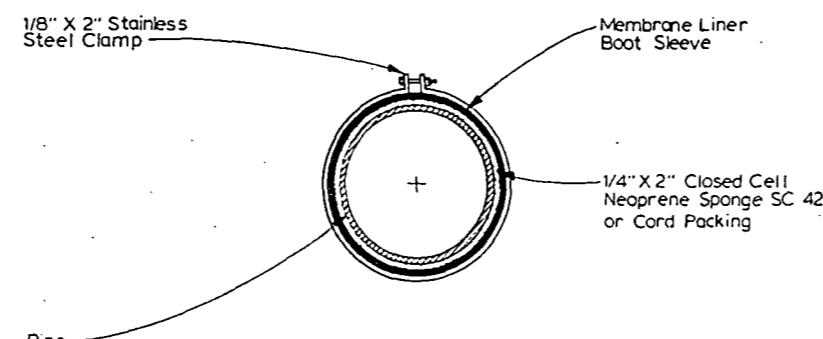
No Scale



Pipe Penetration of Synthetic Liner J  
No Scale 212



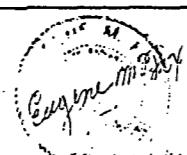
Liner Anchors



## Stainless Steel Clam

NO scale

**metrix, Inc.**  
364-460  
Washington 28390  
63-5178  
  
13020 Northup Way, Suite 6  
Bellevue, Washington 98005  
455-2550



APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON 7/28/19¹⁵  
ATTEST: *Barbara J. Taylor* CHAIR  
EXECUTIVE DIRECTOR PROJECT

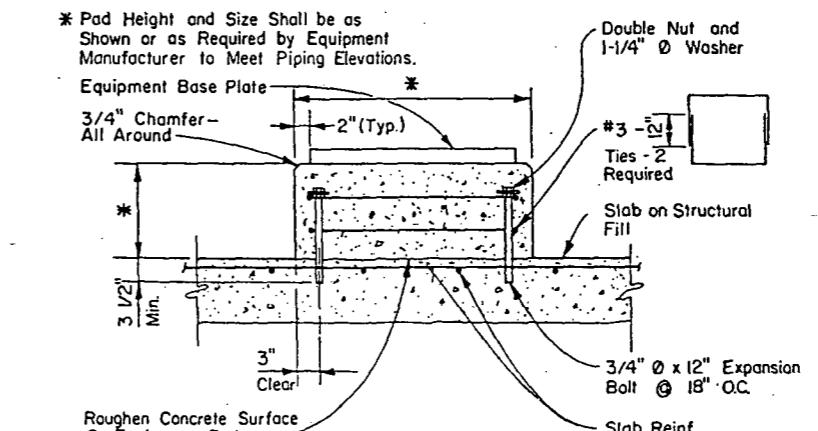
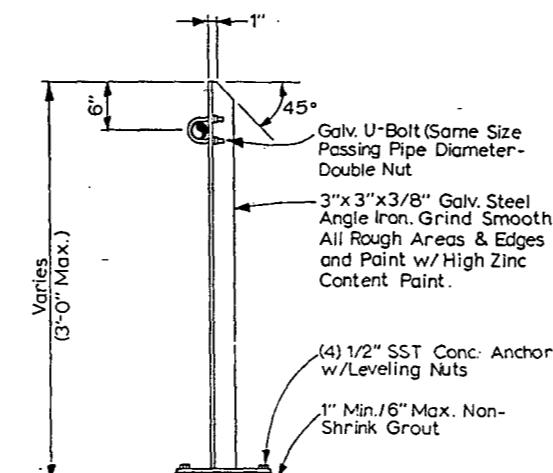
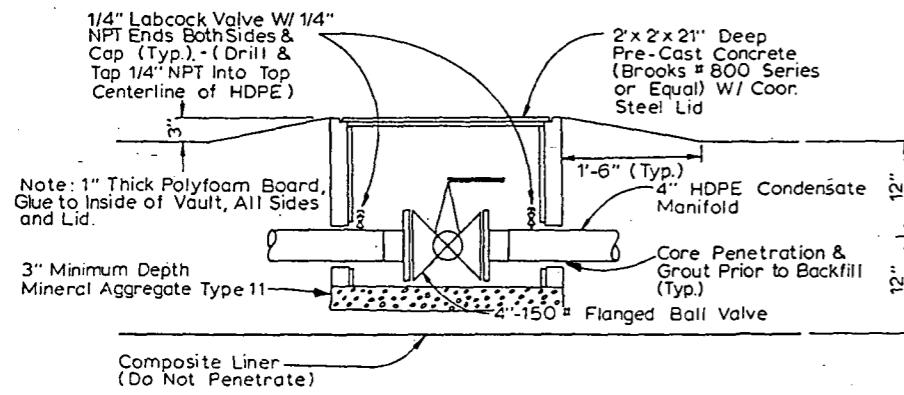
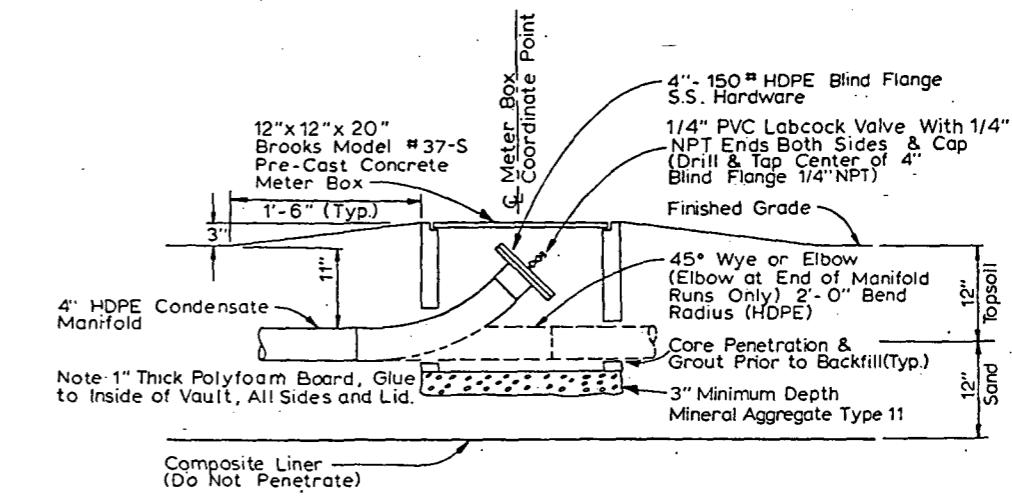
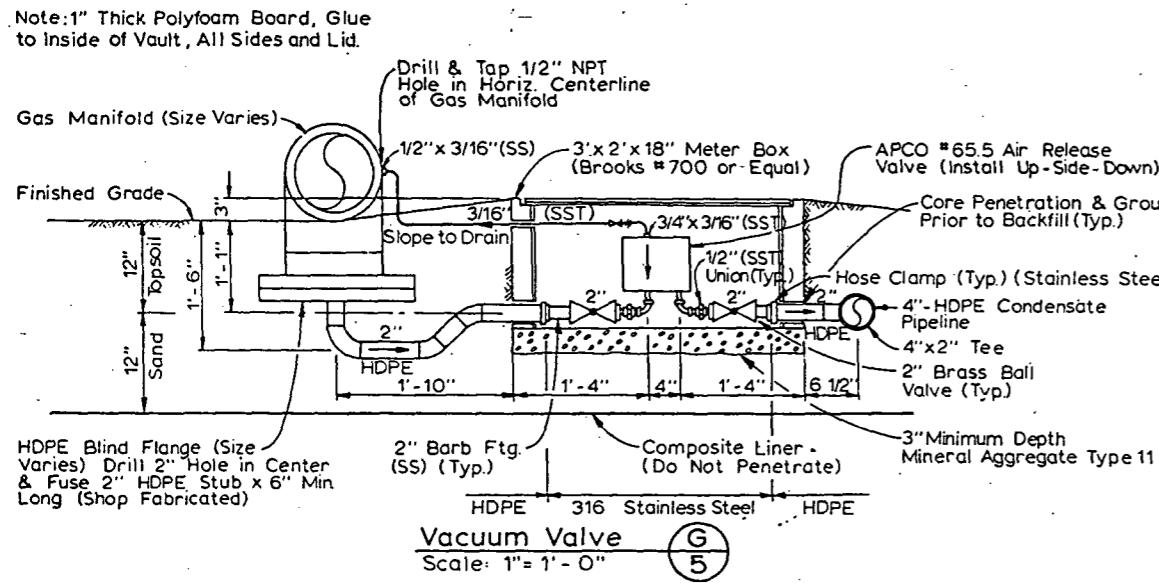
NAME OR INITIALS AND DATE		INITIALS AND DATE	
DESIGNED	<u>G. Dicks</u>	REVIEWED	
CHECKED	<u>G. Fox</u>	DES	CONST.
DRAWN	<u>B. Gulledge</u>	TRANS. SVC.	PROJ. MGR
CHECKED	<u>G. Fox</u>	RECEIVED	<u>Diane Gandy 3/11/87</u>
DESIGN REVIEW	<u>G. Fox</u>	REVISED AS BUILT	<u>ABC 11492</u>
All work done in accordance with the City of Seguin Standard Plans and Specifications in			

**THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING**

## Liner Connection Details Midway Landfill Final Cover System

JOB NO.	PC .....
	R'W .....
	CO.
VAULT PLAN NO	
782-177	
SHEET 24 OF 30	





etrix, Inc.

13020 Northup Way, Suite 8  
Seattle Washington 98034  
423-3350



APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON 7/28/89

ATTEST:  
*Bernard J. Teller*  
EXECUTIVE DIRECTOR  
PROJECT NO.

NAME OR INITIALS AND DATE  
DESIGNED ... B. Sullivan  
CHECKED ... R. Hines  
DRAWN ... K. Stallman  
CHECKED ... B. Sullivan  
DESIGN REVIEW: R. Hines  
REVIEWED AS BUILT ABC 11/19/92

INITIALS AND DATE  
REVIEWS  
DES CONST.  
TRANS SVC PROJ MGR 7-28-92  
RECEIVED *Done 7/26/89*

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
GARY ZARKER, DIRECTOR OF ENGINEERING  
ORDINANCE NO  
FUND  
SCALE 1" As Noted  
INSPECTOR'S BOOK

Condensate Collection Details  
Midway Landfill  
Final Cover System

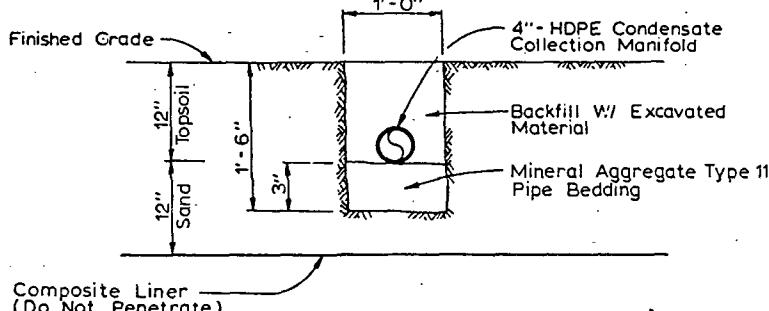
PC .....  
R-W .....  
CO .....  
VAULT PLAN NO  
782-177  
SHEET 26 OF 30

"AS BUILT" PER PLAN EXCEPT AS NOTED

CONDENSATE COLLECTION TANK  
NOZZLE CHART

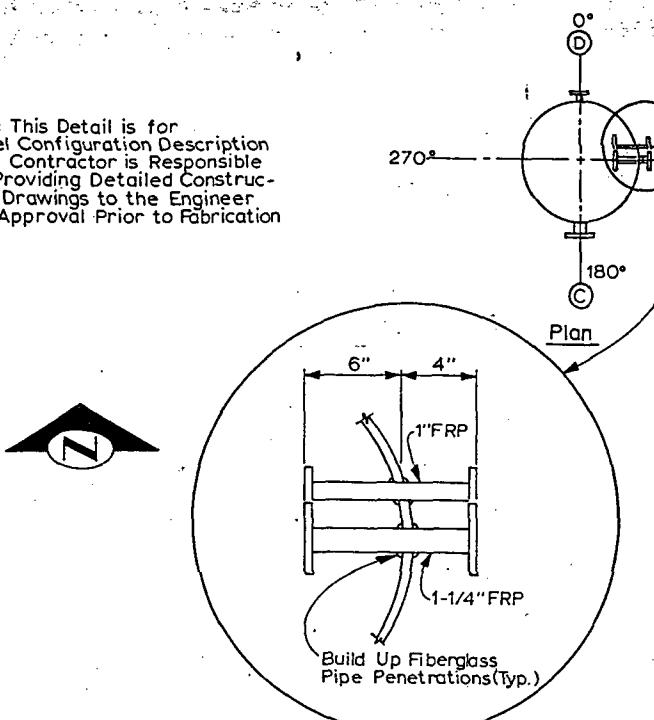
NOZZLE	SERVICE	ORIENTATION	TYPE
A	LIQUID OUT	90°	1-1/4"-150# (TWO WAY - SEE DETAIL)
B	PRESSURE IN	AS SHOWN	1"-150# (TWO WAY - SEE DETAIL)
C	INLET	180°	4"-150#
D	VACUUM OUT	0°	1"-150#
L	LEVEL CONTROL	90°	1-1/2" FNPT

Note: This Detail is for  
Vessel Configuration Description  
Only. Contractor is Responsible  
for Providing Detailed Construction  
Drawings to the Engineer  
for Approval Prior to Fabrication



Typical Condensate Manifold Trench  
No Scale

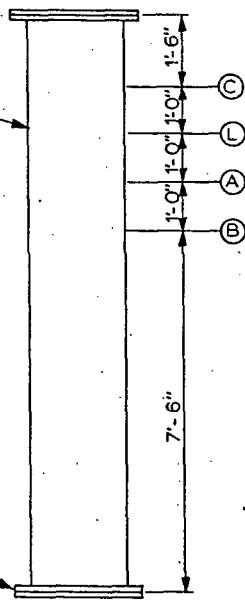
K  
5



24" I.D. Fiberglass Reinforced Plastic

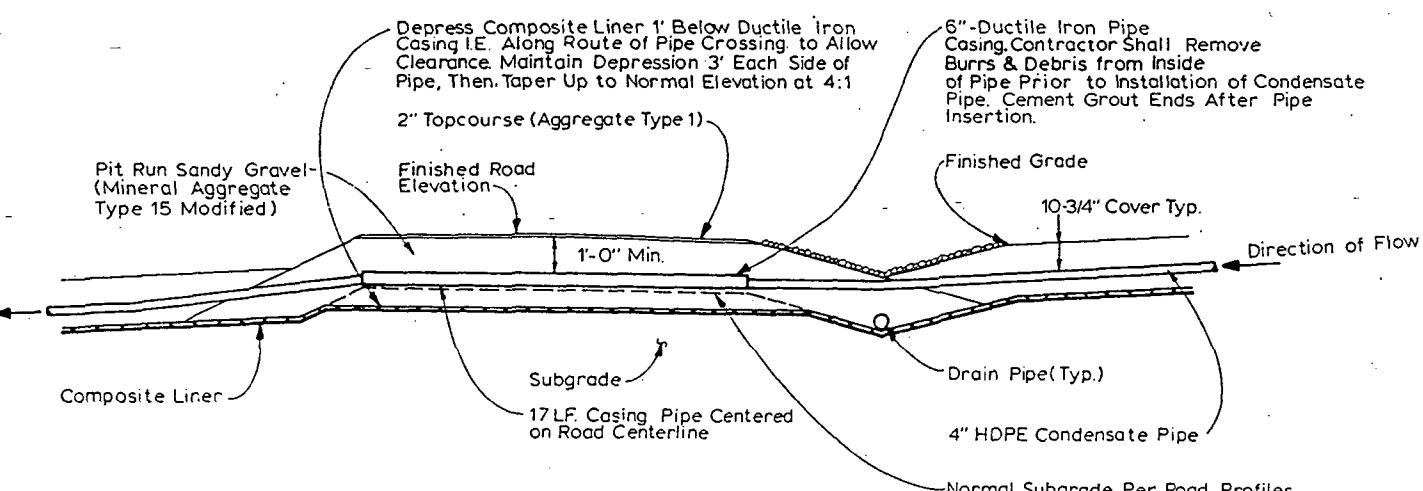
For Orientation  
See Plan View

24"-150# Blind Flange  
w/Stainless Steel Hardware  
(Typ.-2)



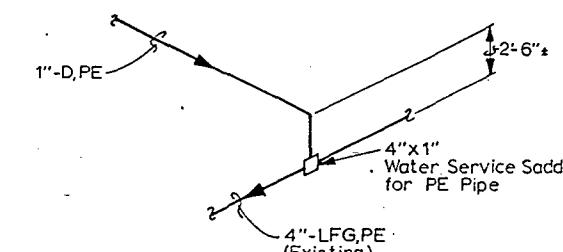
Condensate Collection  
Tank Detail  
No Scale

M  
25



Road Crossing for  
Condensate Drain Line  
No Scale

L  
5



Piping Connection Detail  
No Scale

N  
6

'AS BUILT' PER PLAN EXCEPT AS NOTED

metrix, Inc.

13020 Northup Way, Suite 8  
Bellevue, Washington 98005  
425-2550



APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON 7/28/89

ATTEST: *Barbara J. Abner* CHAIRMAN  
EXECUTIVE DIRECTOR PROJECT NO. 782-177

NAME OR INITIALS AND DATE

REVIEWED B. Sullivan

CHECKED R. Hines

DES. K. Stallman

CONST. PROJ.MGR. 72657CC

TRANS. SVC.

DRAWN B. Sullivan

RECEIVED *Diane Goh* 7/26/89

REvised AS BUILT ABC 11/05/92

DESIGN REVIEW R. Hines

REvised AS BUILT ABC 11/05/92

INITIALS AND DATE

REVIEWED

DES.

CONST.

PROJ.MGR.

TRANS. SVC.

DRAWN

RECEIVED

REvised AS BUILT

DESIGN REVIEW

REvised AS BUILT

THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING

GARY ZARKER, DIRECTOR OF ENGINEERING

ORDINANCE NO.

FUND.

SCALE H As Noted

APPROVED

INSPECTOR'S BOOK

Condensate Collection Details

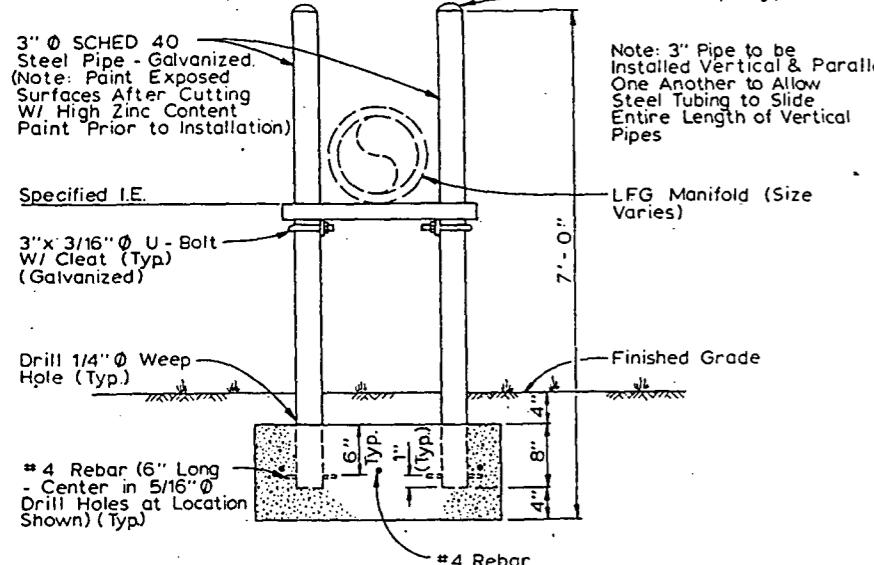
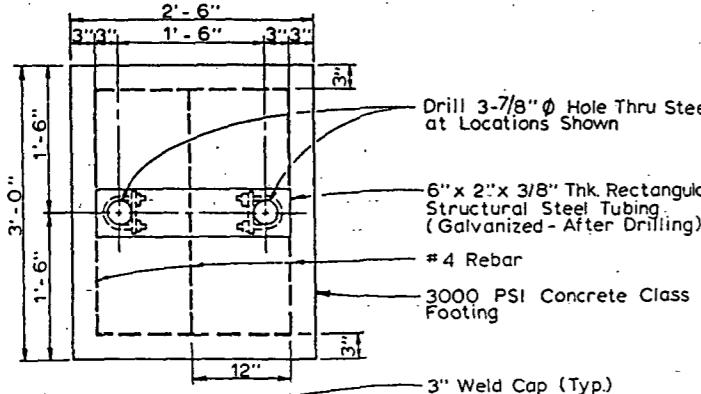
Midway Landfill  
Final Cover System

PC  
R/W  
CO

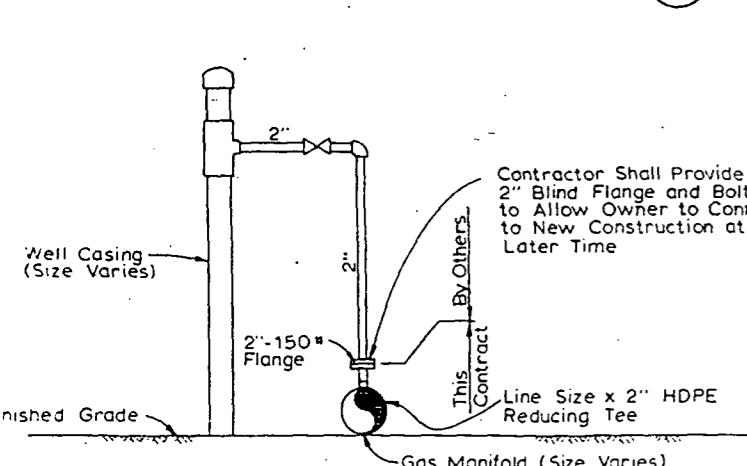
Vault Plan No.

782-177

Sheet 27 of 30



**Adjustable Pipe Support**



Well Connection at Wells 1 Through 56, PA-3 Through PA-10 (94 Required)

**Well Connection**

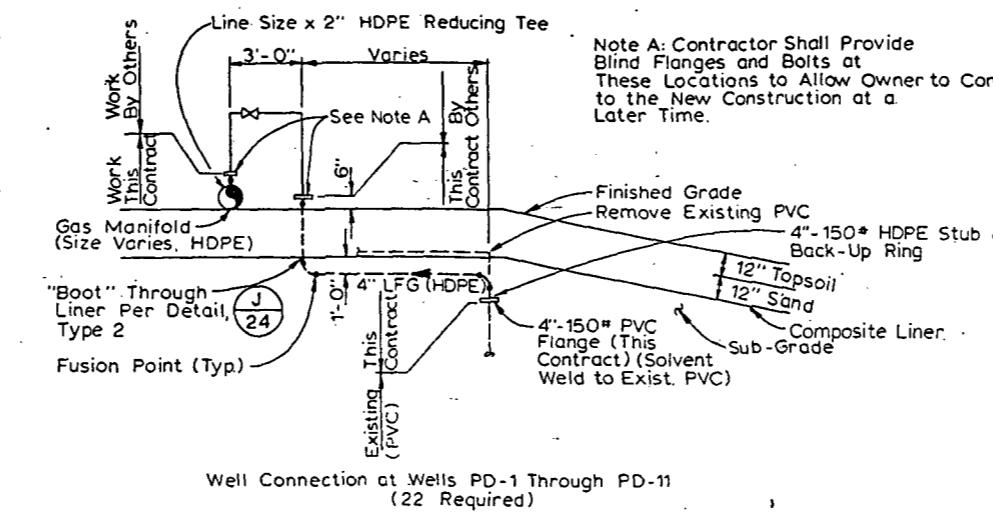
No Scale

**Well Connection**

Scale: 1/8" = 1' - 0"

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED <u>B. Sullivan</u> 7/28/89	REVIEWED DES. CONSTR. 7/28/89
CHECKED <u>R. Hines</u>	TRANS. SVC. PROJ. NO. 728112
DRAWN <u>K. Stallman</u>	RECEIVED Drawn 7/26/89
CHECKED <u>B. Sullivan</u>	REVISED AS BUILT 7/26/89
DESIGN REVIEW R. Hines	INSPECTOR'S BOOK

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Specific Provisions

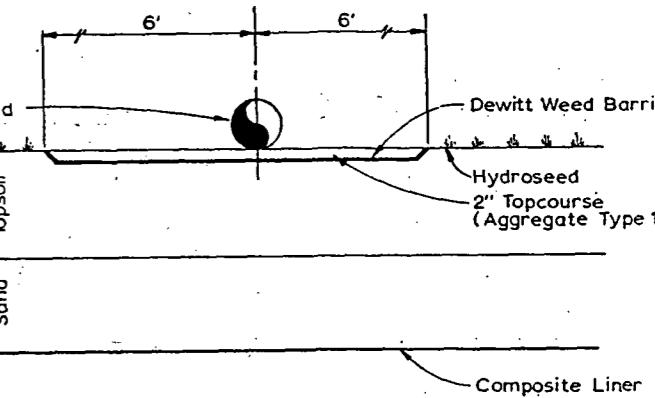


Well Connection at Wells PD-1 Through PD-11 (22 Required)

**Well Connection**

Scale: 1/4" = 1' - 0"

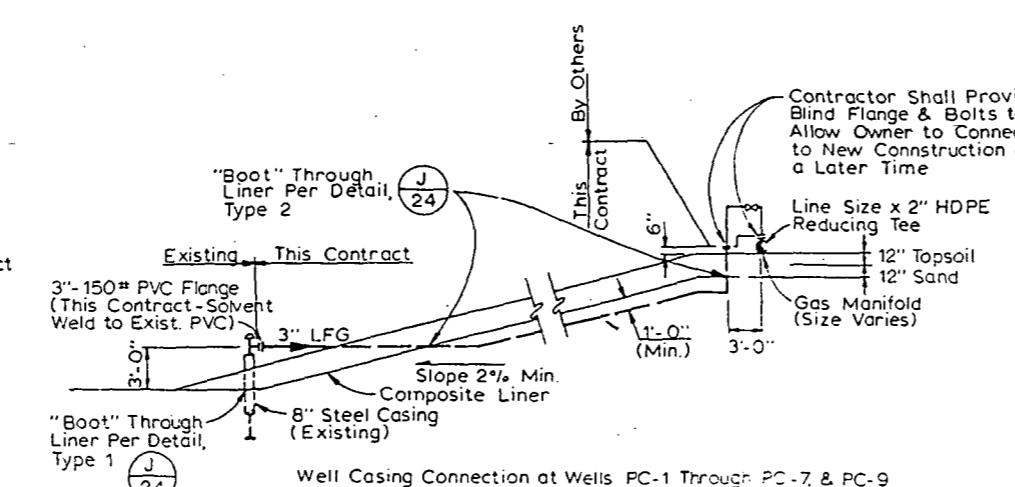
(8,21)



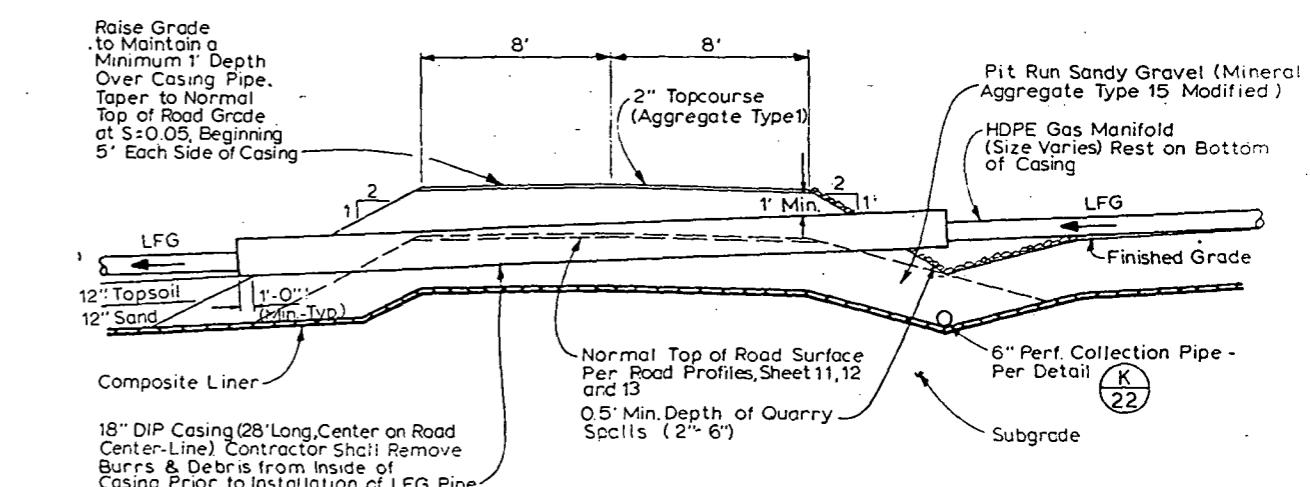
**Typical Surface Cover Along Gas Manifold**

No Scale

(8,90)



Well Casing Connection at Wells PC-1 Through PC-7, & PC-9 (16 Required)

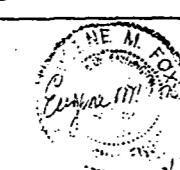


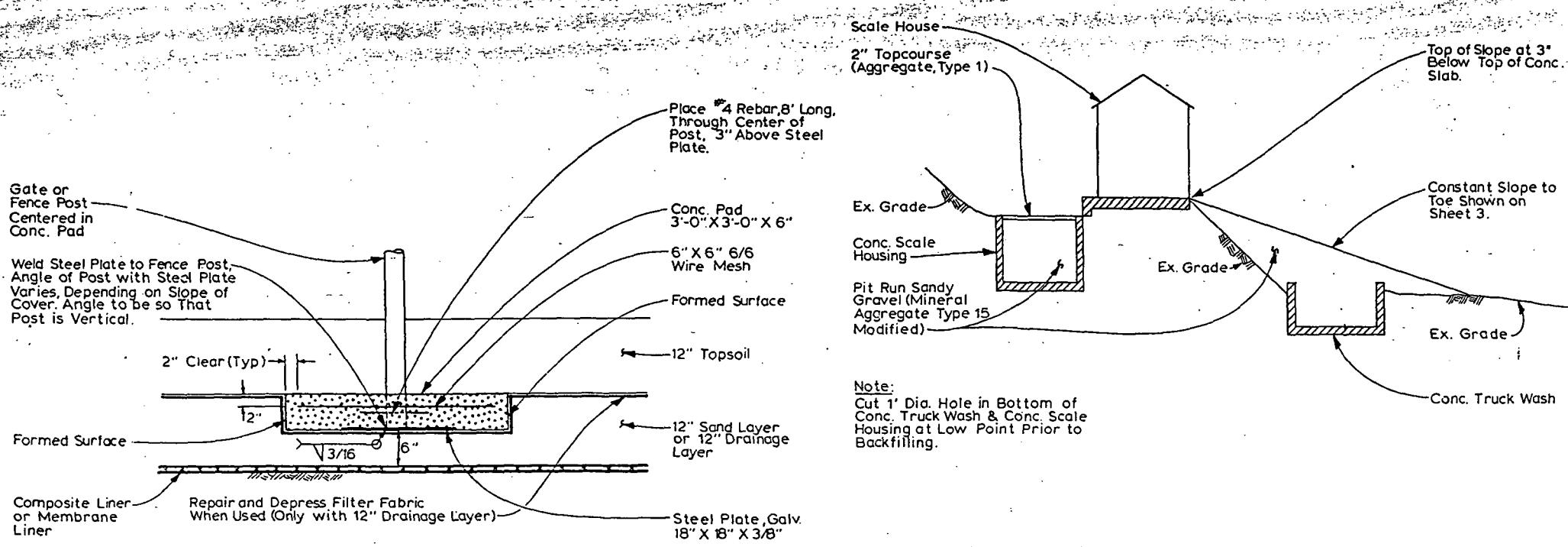
**Road Crossing for Gas Manifold**

No Scale

(E 8)

"AS BUILT" PER PLAN EXCEPT AS NOTED

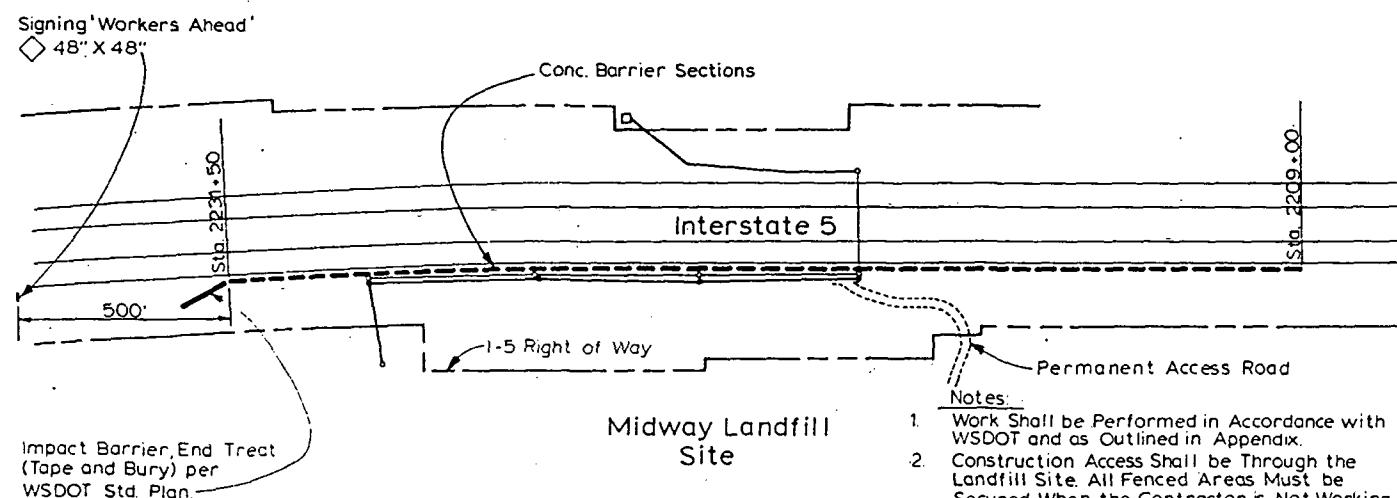




Fence Post Base Plate **A**  
No Scale **(2,3,4)**

Scale/Truck Wash  
Typical Section  
No Scale **(C)**

Drainage Layer Transition  
Typical Section  
No Scale **(D)**



Traffic Barrier Plan  
No Scale **(B)**

- Notes:
1. Work Shall be Performed in Accordance with WSDOT and as Outlined in Appendix.
  2. Construction Access Shall be Through the Landfill Site. All Fenced Areas Must be Secured When the Contractor is Not Working.
  3. Barrier Limits Shown in WSDOT I-5 Stationing.

'AS BUILT' PER PLAN EXCEPT AS NOTED

metrix, Inc.  
13020 Northup Way, Suite 8  
Bellevue, Washington 98005  
455-2550



APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON **7/28/89**

ATTEST:  
*Barbara J. Maher*  
EXECUTIVE DIRECTOR  
PROJECT NO. **7164**

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED G. Dicks., G. Fox	REVIEWED DES G. Fox CONST. DRAWN B. Gulledge TRANS. SVC. PROJ MGR 72687C
CHECKED G. Fox	RECEIVED <i>Diane Gads</i> 7/26/89
DESIGN REVIEW G. Fox	REVISED AS BUILT ABC 116/92

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Specific Provisions.

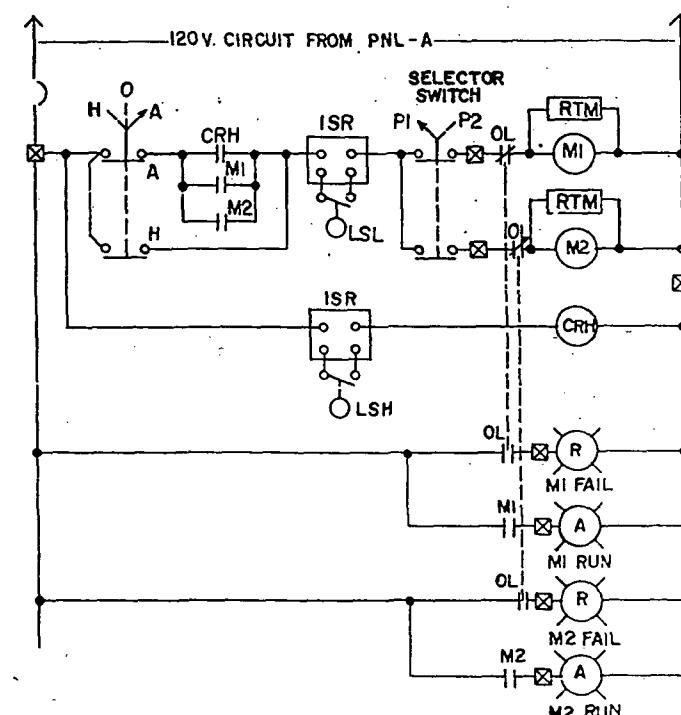
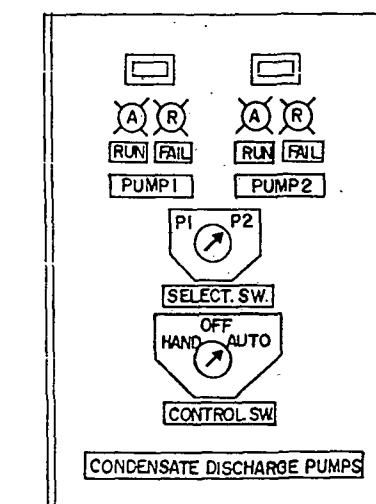
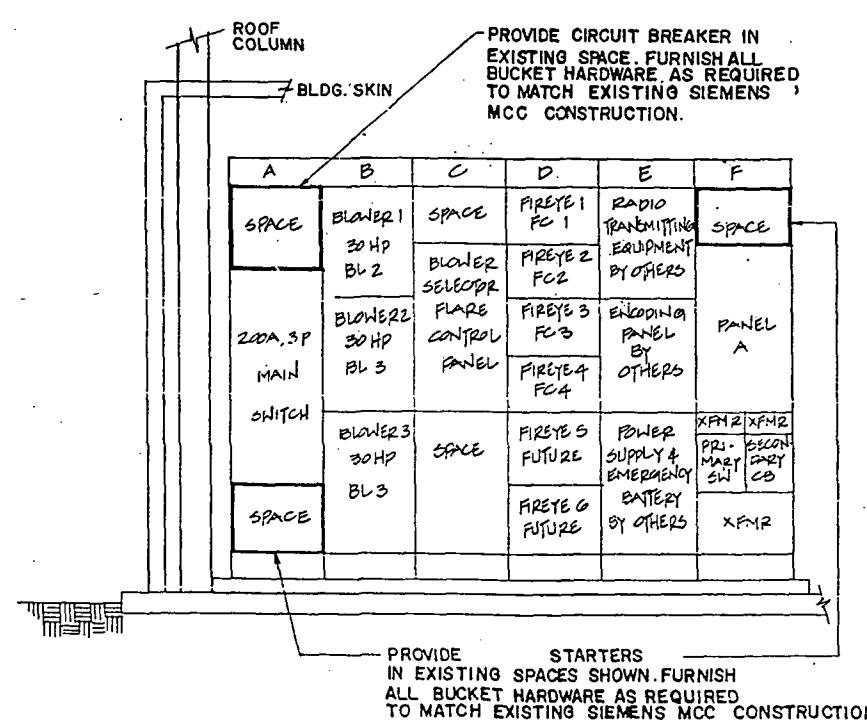
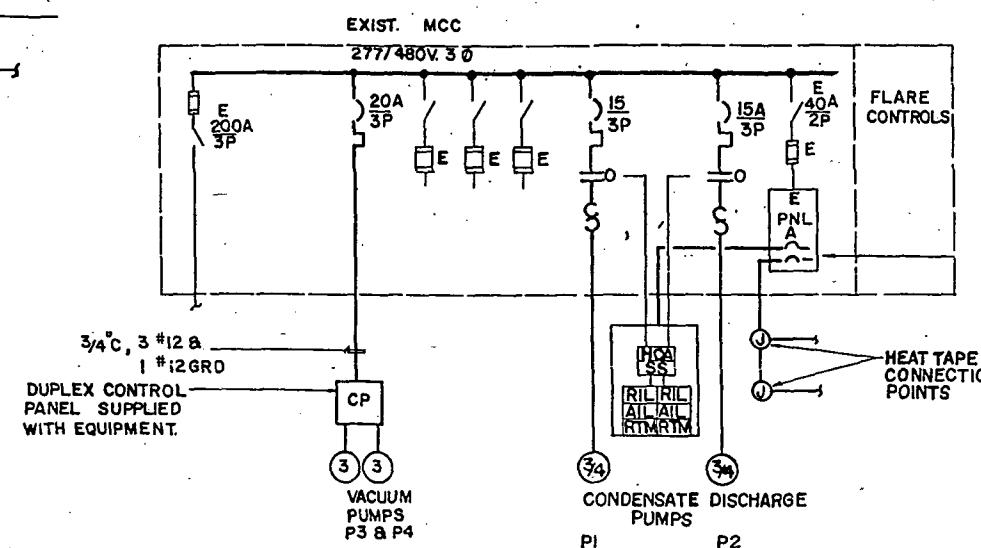
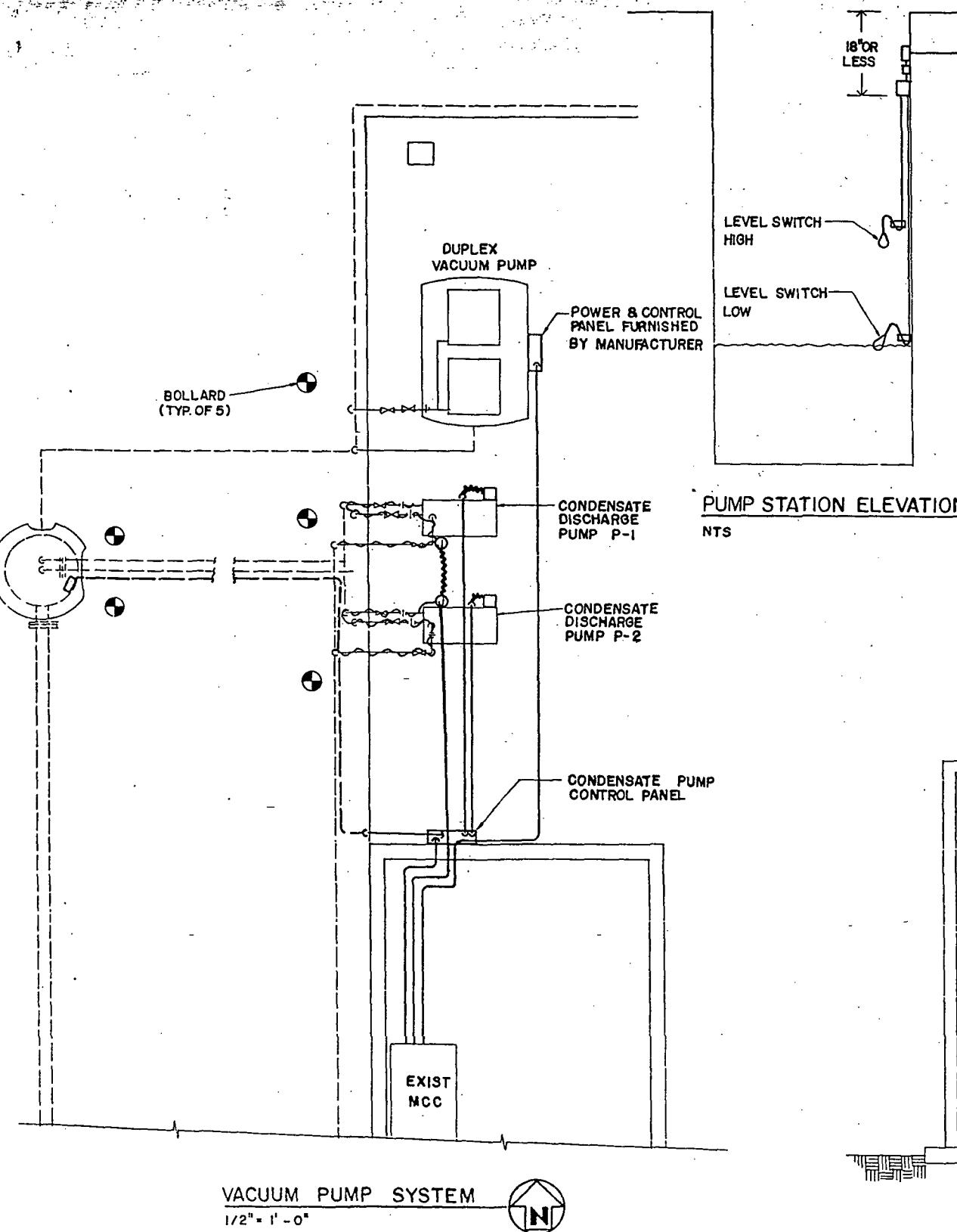
THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
GARY ZARKER, DIRECTOR OF ENGINEERING  
ORDINANCE NO. APPROVED  
FUND: INSPECTOR'S BOOK  
SCALE H As Noted

Miscellaneous Details  
Midway Landfill  
Final Cover System

PC	.....
R/W	.....
CO	.....
VAULT PLAN NO	782-177
SHEET 29	CF 30

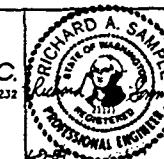
### SYMBOLS LEGEND

	CONDUIT EXPOSED TURNING DOWN OR AWAY.
	CONDUIT BURIED TURNING UP OR TOWARD.
	FLEXIBLE LIQUIDTIGHT CONDUIT.
	CONDUIT SEAL CLASS I. DIV.I. EXPLOSION PROOF.
	ELECTRIC HEAT TAPE
	MOTOR - 3 HP.
	20A 3P CIRCUIT BREAKER WITH THERMAL MAGNETIC TRIP AMPERE RATING & NUMBER OF POLES.
	LIGHT LINES INDICATE EXIST EQUIPMENT OR CONDUIT & WIRE.
	HEAVY LINES INDICATE NEW EQUIPMENT OR CONDUIT & WIRE.
	DUPLEX RECEPTACLE - WEATHERPROOF.
	JUNCTION BOX - EXPLOSION PROOF
	SOLENOID VALVE.
	FLOAT SWITCH - HIGH.
	FLOAT SWITCH - LOW.
	CONTROL RELAY.
	EXISTING.



netrix, Inc.

CASNE ENGINEERING, INC.  
PO BOX 7207 BELLEVUE, WA 98008 (206) 746-4232



APPROVED FOR ADVERTISING  
BY THE BOARD OF PUBLIC WORKS  
SEATTLE WASHINGTON 7/28/1989  
ATTEST:  
Richard A. Sample  
EXECUTIVE DIRECTOR  
PROJECT NO.

NAME OR INITIALS AND DATE  
DESIGNED K. Albinger  
CHECKED R. Sample  
DRAWN B. Kardua  
CHECKED K. Albinger  
RECEIVED Design Gds. 3/24/89  
DESIGN REVIEW R. Sample  
REVISED AS BUILT 4/7/1992

INITIALS AND DATE  
REVIEWED: DES. CONST. TRANS. SVC. PROJ. NO. 7/28/89  
RECEIVED Design Gds. 3/24/89  
REVISED AS BUILT 4/7/1992

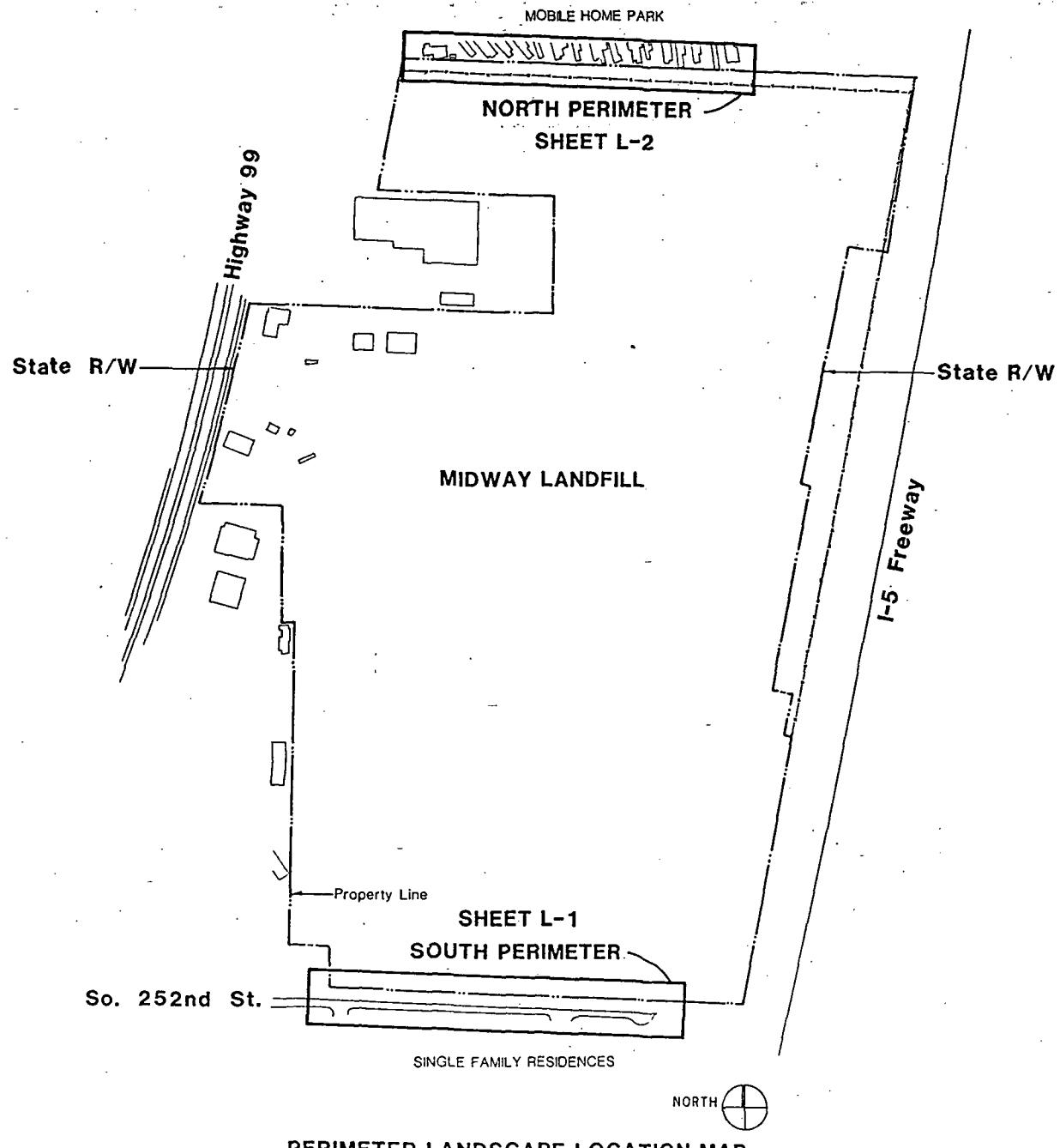
THE CITY OF SEATTLE  
DEPARTMENT OF ENGINEERING  
GARY ZARKER, DIRECTOR OF ENGINEERING  
ORDINANCE NO. APPROVED  
FUND: SCALE: H. V. INSPECTOR'S BOOK

Electrical Details  
Midway Landfill  
Final Cover System

NOTE : FOR LANDSCAPING SEE INSPI. BOOK

PC	NO.
R/W	JOB
CO	VAULT PLAN NO.
	782-177
	SHEET 30 OF 30

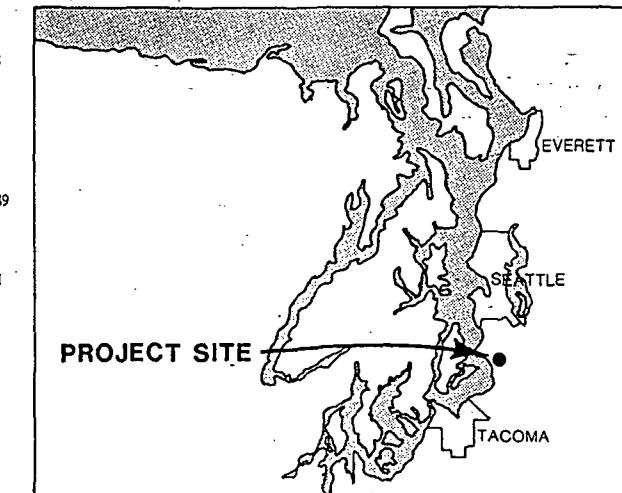
"AS BUILT" PER PLAN EXCPT AS NOTED



#### GENERAL NOTES

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE UTILITIES WITHIN THE CONSTRUCTION AREA TO VERIFY THE LOCATION OF EXISTING FACILITIES. "ONE CALL" TO 1-800-424-5555, 48 HOURS PRIOR TO DIGGING (EXCLUDING WEEKENDS AND HOLIDAYS) WILL RELAY A MESSAGE TO THE UTILITY COMPANIES.
2. THE EXISTING TOPOGRAPHY SHOWN ON THE LANDSCAPE PLANS (SHEETS L-1 AND L-2) ARE BASED ON AERIAL PHOTOGRAPHY PERFORMED ON FEB. 11, 1989 AND DO NOT REFLECT CHANGES MADE SUBSEQUENT TO THAT DATE.
3. ALL INFORMATION CONTAINED IN THESE DOCUMENTS REFLECT WORK WHICH IS TO BE PERFORMED IN CONJUNCTION WITH THE "MIDWAY LANDFILL FINAL COVER SYSTEM" PROJECT. COORDINATE WORK SCHEDULE TO MINIMIZE CONFLICTS AND DUPLICATION OF TASKS WITHIN THE CONSTRUCTION LIMITS.

LANDSCAPED AREA:	NORTH	15,250 SQUARE FEET
	SOUTH	17,400 SQUARE FEET
PARKING:	SOUTH	9,400 SQUARE FEET



# MIDWAY LANDFILL

Final Cover System  
Perimeter Landscape

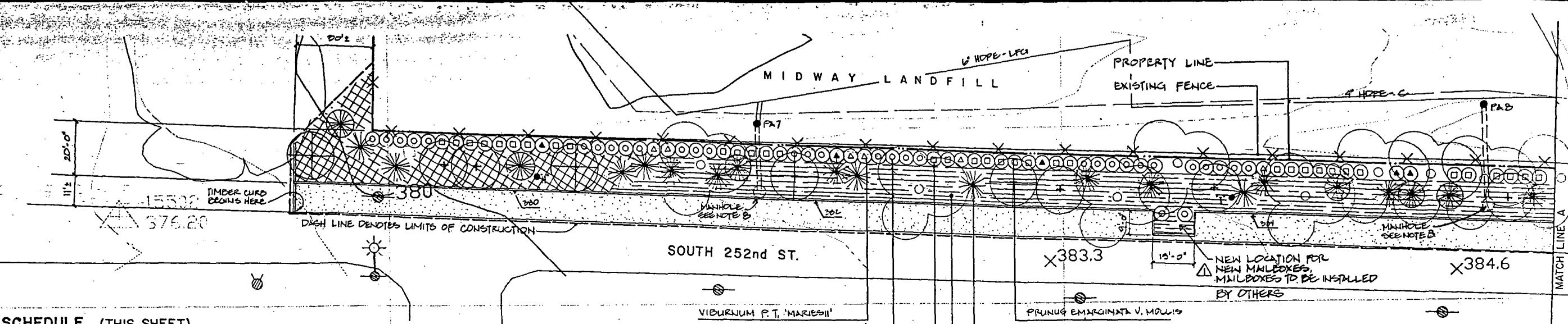
**PARAMETRIX, INC.**

vault plan no.  
782-177

Landscape Architects  
Recreation Planners  
Environmental Planners

**OSBORN PACIFIC GROUP INC.**

2215 First Avenue, Seattle Washington 98121 (206) 467-7936



### PLANT SCHEDULE (THIS SHEET)

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
+	12	CUPRESSOCYPARIS LEYLANDII	LEYLAND CYPRESS	6'-7 HT.	AS SHOWN
○	11	ACER CIRCINATUM	VINE MAPLE	1-1/4" CAL	AS SHOWN
□	24	PINUS CONTORTA	SHORE PINE	MIN. 3 CANES 5'-6 HT.	AS SHOWN
△	7	PRUNUS EMARGINATA V. MOLLIS	BITTER CHERRY	1-1/4" CAL	AS SHOWN
◎	8 1/2	CEANOHTUS THYRSIFLORUS	BLUE BLOSSOM	5 GAL	5' O.C.
◎	50 5/4	MAHONIA AQUIFOLIUM	OREGON GRAPE	5 GAL	5' O.C.
◎	67 6/8	COTONEASTER PARNEYI	PARNEY COTONEASTER	5 GAL	5' O.C.
◎	14 1/2	VIBURNUM PLICATUM TOMENTOSUM 'MARIESII'	DOUBLEFILE VIBURNUM	5 GAL	5' O.C.
◎	950	Gaultheria shallon	SALAL	1 GAL	2' O.C.
◎	5 4/8	HEDERA HELIX 'HAHNS'	HAHNS IVY	4 POTS	18' O.C.
◆	5 2/5				

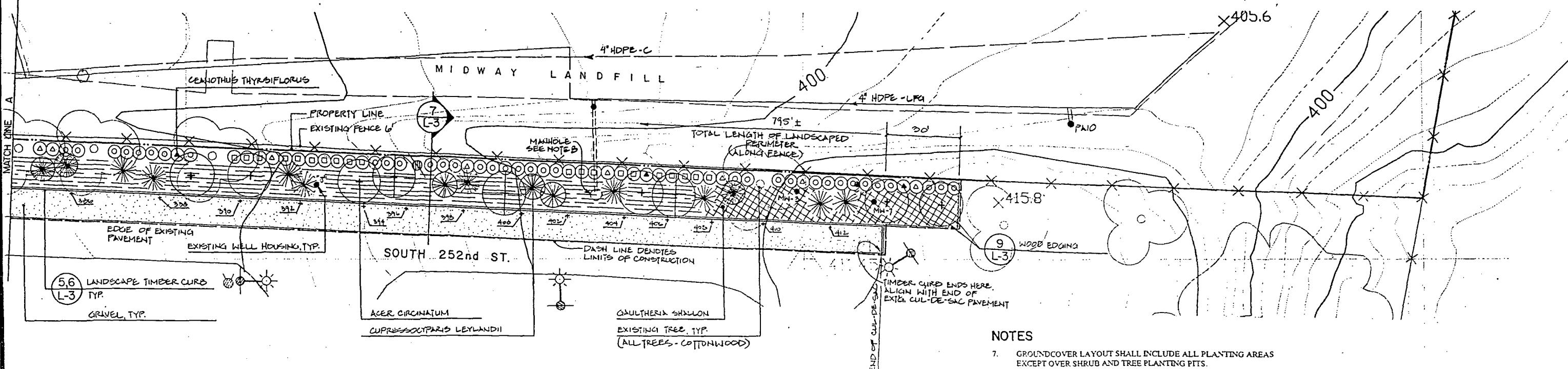
### LEGEND

FINISH GRADE SPOT ELEVATION AT FACE OF TIMBER CURB.  
PROVIDE SMOOTH TRANSITION BETWEEN SPOT ELEVATIONS. FINAL  
GRADE SHALL BE PARALLEL AND EVEN WITH THE EDGE OF EXISTING  
PAVEMENT.

### NOTES

- ALL EXISTING STRUCTURES, UNDER AND ABOVE GROUND UTILITIES, FENCES AND PRIVATE PROPERTIES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES. ABANDONED AUTOMOBILES AND AUTO PARTS STILL REMAINING ON SITE SHALL BE REMOVED FROM SITE AND DISPOSED.
- CLEAR AND GRUB ALL EXISTING VEGETATION EXCEPT TREES. REMOVE TREES AS DIRECTED BY THE PROJECT ENGINEER. PROTECT ALL REMAINING TREES FROM DAMAGE DURING CLEARING, GRUBBING AND LANDSCAPE OPERATIONS.
- Maintain original finish grade around all existing elements that are to be saved.
- RELOCATE EXISTING MAILBOXES TO ACCOMMODATE NEW GRAVEL PARKING STRIP, AS SHOWN. SET POSTS IN CONCRETE, PLUMB, AND AT ORIGINAL HEIGHT.
- ALL LANDSCAPE AREA TO RECEIVE 6 INCHES MINIMUM DEPTH OF TOPSOIL, AND 2 INCHES MINIMUM DEPTH OF BARK MULCH.
- ALL PLANTS LABELED ON THIS DRAWING ARE TYPICAL FOR THAT SYMBOL. SEE PLANT SCHEDULE.

0 5 10 20 40 60  
SCALE: 1" = 20'-0"



### NOTES

- GROUNDCOVER LAYOUT SHALL INCLUDE ALL PLANTING AREAS EXCEPT OVER SHRUB AND TREE PLANTING PITS.
- MANHOLE LOCATIONS ARE APPROXIMATE. VERIFY LOCATIONS PRIOR TO CONSTRUCTION.



"AS BUILT" PER PLANS 1782-177

Vault Serial No:  
31905

NO	RVISIONS MAILBOX LOCATION	DATE 2-25-91	BY M.Y.	DESIGNED M. YAMAGUCHI
				DRAWN M.Y.
				CHECKED L.O.

APPROVED
SCALE 1" = 20'-0"
DATE 10-22-90

Landscape Architects Recreation Planners Environmental Planners
Osborn Pacific Group Inc.
3015 First Avenue Seattle Washington 98101 206-468-7955

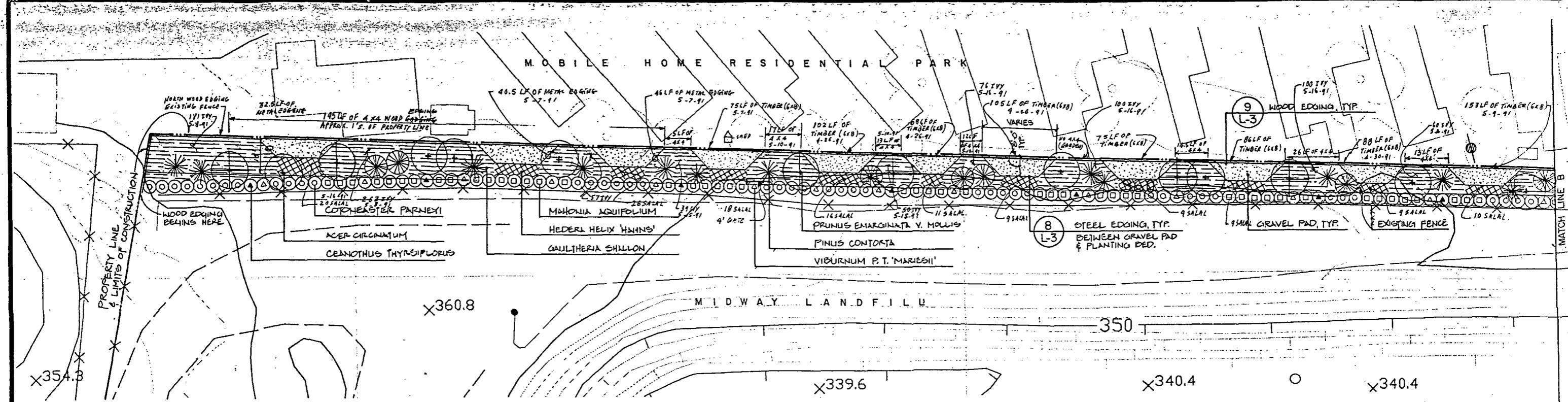
Parametric, Inc.
Post Office Box 460 Summer, Washington 98330 206-838-9610 206-883-5125
4970 Auto Center Way Bremerton, Washington 98312 206-377-0014
10320 Normand Way Bellevue, Washington 98005 206-455-2550
8130 NE 78th Court, Suite C-6 Portland, Oregon 97218 503-256-5444

JOB NAME MIDWAY LANDFILL
JOB NUMBER

LANDSCAPE PLAN - SOUTH PERIMETER
----------------------------------

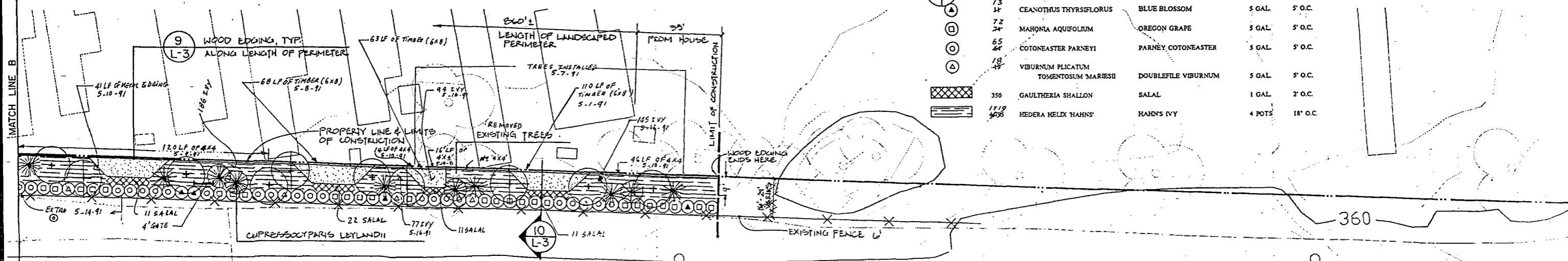
SHEET NO L-1
2 5

vault plan no  
782-177



#### NOTES

- ALL EXISTING STRUCTURES, UNDER AND ABOVE GROUND UTILITIES, PRIVATE PROPERTIES AND EXISTING TREES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES.
  - COORDINATE SCHEDULING WITH GENERAL CONTRACTOR TO ALLOW LANDSCAPE INSTALLATION PRIOR TO FENCE REINSTALLATION.
  - ALL LANDSCAPE AREA TO RECEIVE 6 INCHES MINIMUM DEPTH OF TOPSOIL, AND 2 INCHES MINIMUM DEPTH OF BARK MULCH.
  - ALL PLANTS LABELED ON THIS DRAWING ARE TYPICAL FOR THAT SYMBOL. SEE PLANT SCHEDULE.
  - GROUNDCOVER LAYOUT SHALL INCLUDE ALL PLANTING AREAS EXCEPT OVER SHRUB AND TREE PLANTING PITS.
  - ALL PROBES ARE SOUTH OF EXISTING FENCE. VERIFY FIELD LOCATION AND MARK VISIBLE WITH LATHE AND FLAGGING PRIOR TO CONSTRUCTION.
- NOTE: NO GROUND COVER PLANT ON LANDFILL SIDE OF FENCE (S. SIDE)



#### PLANT SCHEDULE (THIS SHEET)

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
✓ 11	11	CUPRESSOCYPARIS LEYLANDII	LEYLAND CYPRESS	6'-7 HT.	AS SHOWN
✓ 13	13	ACER CIRCINATUM	VINE MAPLE	1-3/4" CAL MIN. 3 CANES	AS SHOWN
✓ 18	18	PRUNUS CONTORTA	SHORE PINE	5'-6 HT.	AS SHOWN
✓ 14	14	PRUNUS EMARGINATA V. MOLLIS	BITTER CHERRY	1-3/4" CAL	AS SHOWN
✓ 13	13	CEANOTHUS THYRSIFLORUS	BLUE BLOSSOM	5 GAL	5' O.C.
✓ 14	14	MAHONIA AQUIFOLIUM	OREGON GRAPE	5 GAL	5' O.C.
✓ 24	24	COTONEASTER PARNEYI	PARNEY COTONEASTER	5 GAL	5' O.C.
✓ 65	65	VIBURNUM PLICATUM	DOUBLEFILE VIBURNUM	5 GAL	5' O.C.
✓ 44	44	TOMENTOSUM MARESI		1 GAL	2' O.C.
✓ 18	18	GUAULTHERIA SHALLON	SALAL	4 POTS	18" O.C.
✓ 19	19	HEDERA HELIX HAHNS'	HAHN'S IVY		
350	350				
1719	1719				
4675	4675				

0 5 10 20 40 60  
SCALE: 1" = 20'-0"



STATE OF  
WASHINGTON  
REGISTERED  
LANDSCAPE ARCHITECT  
*Masatoshi Yamaguchi*  
MASATOSHI YAMAGUCHI  
CERTIFICATE NO. 371

31905

Vault plan no  
782-177

REVISIONS DATE BY DESIGNED DRAWN APPROVED DRAWN CHECKED DATE APPROVED DRAWN CHECKED DATE

M. YAMAGUCHI	10-22-90
M.Y.	10-22-90
L.O.	

1" = 20'-0"
-------------

Osborn Pacific Group Inc.
2025 First Avenue, Seattle, Washington 98121 (206) 448-7996

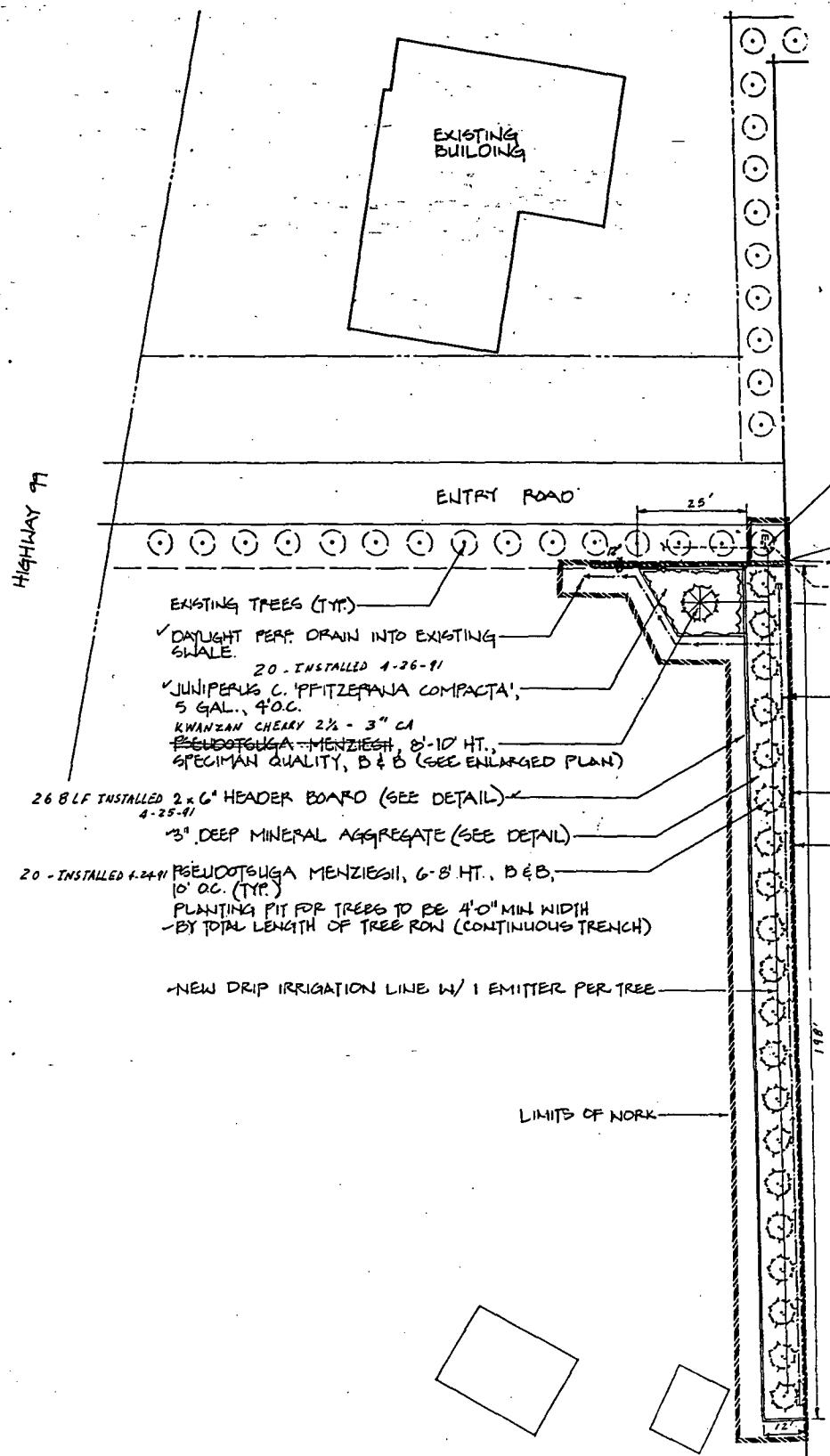
Parametric, Inc.
Post Office Box 460, Sumner, Washington 98390 206-838-9810 206-863-5128 4970 Auto Center Way, Bremerton, Washington 98312 206-377-0014
13020 Northgate Way, Bellevue, Washington 98005 206-455-2550
6120 NE 78th Court, Suite C-6, Portland, Oregon 97218 503-256-5444

JOB NAME: MIDWAY LANDFILL
JOB NUMBER:

LANDSCAPE PLAN - NORTH PERIMETER
----------------------------------

3 5  
SHEET NO L-2



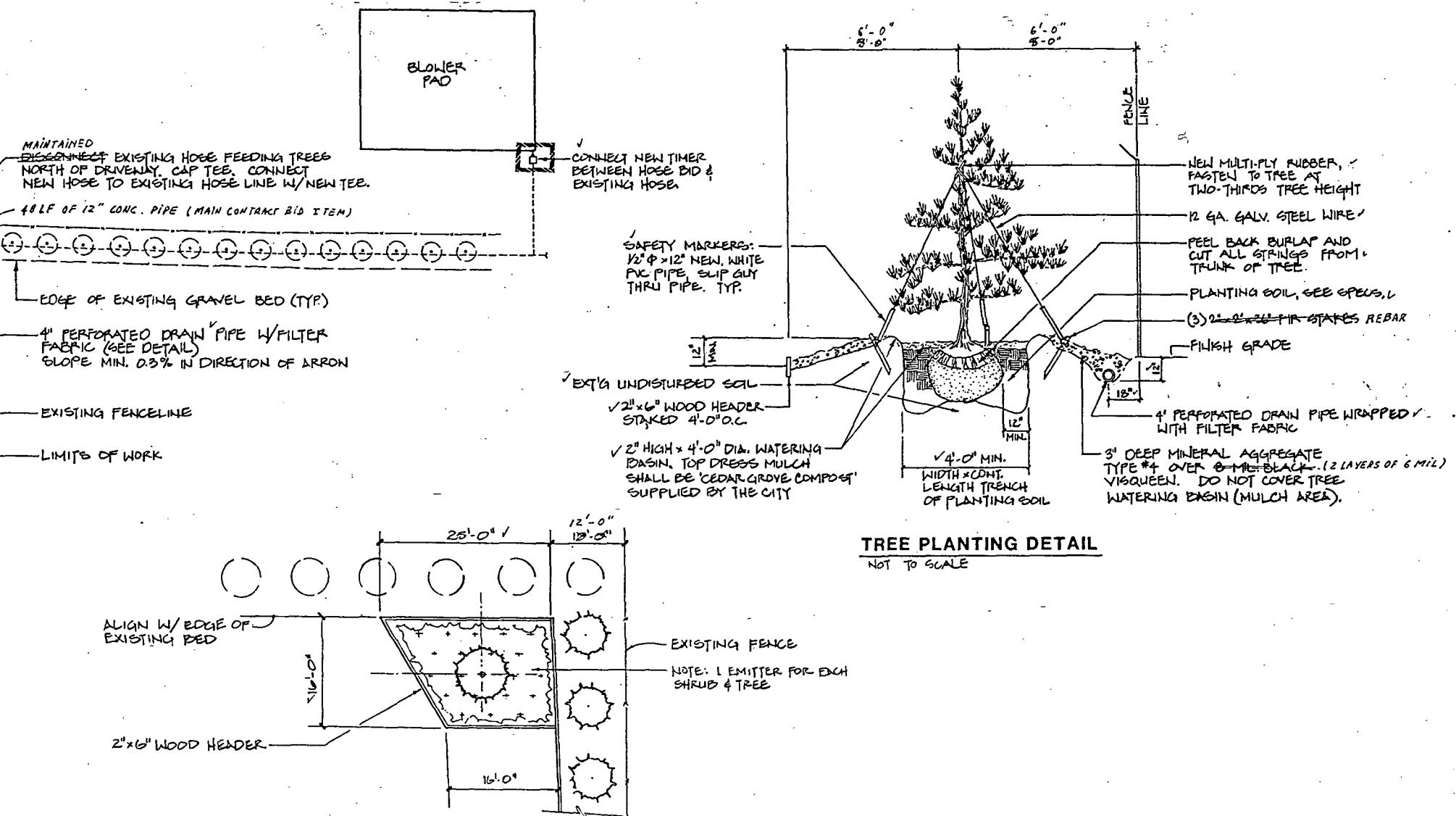


### IRRIGATION SCHEDULE

QTY.	DESCRIPTION
41	RAINBIRD 'RAIN BUG' Emitter (TYPE TO MATCH EXISTING) RAIN TUBE IRRIGATION TUBING RAINBIRD RBT-15DP Emitter Distribution Tubing
1	NELSON 'RAIN DATE' MODEL 5300 ELECTRONIC TIMER (INSTALL PER MANUFACTURER'S SPECS.)

### PLANT SCHEDULE

QTY.	DESCRIPTION	SIZE	COMMENTS
1	PSEUDOTSUGA MENZIESII / DOUGLAS FIR	10'-12' HT.	SPECIMAN QUALITY, B&B
20	PSEUDOTSUGA MENZIESII / DOUGLAS FIR	6'-7' HT.	10' O.C., B&B
20	JUNIPERUS C. 'PFITZERIANA GLACIA'	5 GAL.	4' O.C.
	- DWARF PFITZER JUNIPER		



Landscape Architects  
Recreation Planners  
Environmental Planners

OSBORN PACIFIC GROUP INC.

2025 First Avenue, Seattle Washington 98101 • 206.467.7700

ON	PC.....
R/W.....	CO.....
CO.....	Vault Plan No.
Vault Plan No.	782-177
SHEET.....	5.....OF.....5

# Seattle Solid Waste Utility

Division of Seattle Engineering Department



Gary Zarker, Director of Engineering  
Diana Gale, Director, Solid Waste Utility

January 9, 1992

Ching-Pi Wang, Project Manager  
Washington Department of Ecology  
Northwest Regional Office  
3190 - 160th Avenue S.E.  
Bellevue, Washington 98008-5452

RE: Midway Landfill - Final Project Report For Consent Decree Projects

Dear Mr. Wang:

This letter constitutes the Final Project Report for the Final Cover remedial construction project that is substantially completed at the Midway Landfill, per Section XI.B.3 of the Midway Landfill Consent Decree.

As you are aware this project was substantially complete in May of 1991, however the contract is not closed since a few punch list items still need correction and the contractor's claim for delay due to the addition of the clay layer is not yet settled. Until the outstanding payment issues are resolved, the Seattle Engineering Department - Contract Payment section will not have completed their payment audit and check on the field record drawings. The final as-builts will not be drafted on the mylar originals until this check has been completed. Copies of the field record drawing sheets that show any changes are attached. The only changes shown on these sheets are piping re-alignments.

The changes, both minor and major, as documented by contract change orders are summarized as follows:

1. A 12 inch layer of clay was added to the cover as directed by Ecology.
2. Rebates were given for substituted aggregates for Bid Item (BI) 11 Borrow Type 6, BI 12 Borrow Sand Layer, and BI 16 Aggregate Type 15 Modified.
3. The drilled and tapped connections of detail 6 sheet 26 were replaced with saddle tees.
4. Landscaping was added to the north and south ends of the site.

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505 Dexter Horton Building, 710 Second Ave., Seattle, WA 98104 (206) 624-7666

Ching-Pi Wang, Project Manager

January 9, 1992

Page 2

5. Some trees were removed from the south end landscaping area at the citizens request and two gates and a drain pipe were added to the north end landscaping area.
6. Additional float switches were added to the electrical controls to improve the condensate system operation.
7. Landscaping was added along a portion of the west side of the site.
8. A high condensate level shut off switch was added for the vacuum pumps and a terminal strip was added for the alarm telemetry.

I trust that this Final Project Report will meet with your approval. We will submit the final version of the as-built drawings once they are completed. The schedule for the as-builts is not firm, but it is anticipated that they will be completed in about four months once the contract issues are resolved. Please call me at 684-7687 if you have any questions about this report.

Sincerely,



Jeff Neuner  
Landfill Closure Operations

JN/CAO

attachments

cc: Catherine Orsi, Project Engineer  
Midway File

*Craig* *SWU*  
RECEIVED  
APR 12 1993  
SOLID WASTE UTILITY

# Seattle Engineering Department

Gary Zarker, Director  
Norman B. Rice, Mayor

April 6, 1993



**RECEIVED**

APR 12 1993

SOLID WASTE UTILITY

Barbara K. Taber  
Contracting Services Administrator  
Public Works and Consultant Contracting Section  
Department of Administrative Services

Dear Ms. Taber:

**SUBJECT: MIDWAY LANDFILL, FINAL COVER  
ORDINANCE #113200 PWCC #89-56**

This communication voids our letter dated September 22, 1992 wherein we recommended the acceptance of the basic contract with the establishment of a supplemental contract to carry out the remaining plant establishment work. As administrative requirements related to contractor furnished payroll documentation precluded the acceptance prior to the completion of the plant establishment work period, the purpose of a supplemental contract has been negated.

The improvement of Midway Landfill Final Cover as authorized by Ordinance #113200 has been completed by Tri-State Construction Company, including the one-year plant establishment period. Therefore, we recommend that the contract be called complete.

The Notice to Proceed on this project was issued on October 16, 1989 with one hundred ninety-five (195) working days provided to complete the basic work and 365 calendar days plant establishment. The expiration date for the basic work was July 27, 1990. The expiration date for the plant establishment work, based on the February 28, 1992 completion of project landscaping, was February 27, 1993. While the plant establishment work was completed on schedule, during the course of the work, the following occurred which altered the required basic work completion date:

- a. Work was suspended for one hundred twenty-six (126) days from November 8, 1989 through May 14, 1990 for a contract authorized winter suspension of work due to weather.
- b. Seventy-six (76) days were recorded by the Engineer as unworkable due abnormally inclement weather.

10132971

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An equal opportunity-affirmative action employer. Accommodations for people with disabilities provided on request.

Seattle Engineering Department, Room 910, Seattle Municipal Building, 600 Fourth Avenue, Seattle, Washington 98104-1379 (206) 684-5000 VTDD (206) 233-

Barbara K. Taber  
April 8, 1993  
Page Two

- c. Nine (9) days were necessary for the contractor to perform change order work for field revisions requested by the Engineer.
- d. Work was suspended for forty-nine (49) days, from May 17, 1991 through July 26, 1991 for final inspections and compiling a coordinated Discrepancy (Punch) List for the contractor to correct, per specification.

The Engineering Department has granted an extension of time for a. through d. above. Such action has resulted in a timely completion with no liquidated damages.

#### Project Summary

Contractor:	Tri-State Construction Co.
Notice to Proceed Date:	October 16, 1989
Working Days Allowed (Basic Work):	195
Expiration Date (Basic Work):	July 27, 1990
Approved Extension of Time(Basic Work):	260 Days
Revised Expiration Date(Basic Work):	August 12, 1991
Substantial Completion Date (Basic Work):	May 16, 1991
Actual Completion Date (Basic Work)	August 12, 1991
Begin Plant Establishment Year:	February 28, 1992
Calendar Day Allowed:	365
Expiration Date:	February 27, 1993
Actual Completion Date:	February 27, 1993
Original Contract Award:	\$6,740,294.44
Total Value of Scheduled Work:	\$6,365,842.18
11 Change Orders Totalling	\$2,392,462.05
State Sales Tax:	\$ 712,296.07
Total Value of All Work:	\$9,470,600.30

10132972

Barbara K. Taber  
April 8, 1993  
Page three

The Contractor and Subcontractor Performance Evaluations are attached.

Sincerely,

*Herbert W Johnson*

HERBERT W. JOHNSON, P.E.  
Director of Engineering Services

HWJ/GAD:ska

Attachments

cc: Gary Zarker  
Fire Department  
SPD/Captain Moffat  
Dept. of Labor & Industries  
Human Rights Department  
Water Department  
City Light Department  
Andy King/Info Desk  
DWU/Bud McCormick  
Photo Lab  
Senior Engineer/G.A. Dahl  
Project Mgr./Cathy Orsi  
Contractor/Tri-State

Transportation/BWP  
Street Use/KTJ  
Financial Management  
Construction Contracts/DJH  
Construction Mgmt./HAK/KAK  
Field Constr. Records/MDD  
Contract Payments/MLW  
Operations Support/RVH  
W.S.D.O.T.  
U.S. West/Leo Janok  
Metro Transit/Mary Malcolm  
Metro Waste Water/Richard Putney  
Wash. Natural Gas/Gary Swanson

10132873



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APR 21 1992

SOLID WASTE UTILITY

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

*Northwest Regional Office, 3190 - 160th Ave S.E. • Bellevue, Washington 98008-5452 • (206) 649-7000*

April 20, 1992.

Mr. Jeff Neuner  
Seattle Engineering Department  
Solid Waste Utility  
710 Second Avenue, Suite 505  
Seattle, Washington 98104

Re: Midway Landfill Operation & Maintenance Manual

Dear Jeff:

As we discussed today, the Operation and Maintenance manual will be complete after the cleanup action plan is completed to the satisfaction of the City of Seattle and the Department of Ecology. In the meantime, I have reviewed the rest of the Operation and Maintenance manual, and it looks fine to me. I recommend a degree of flexibility in the procedures and conditions outlined in the manual. The flexibility should allow for changes to the manual as necessary during the operations and maintenance of the landfill.

Finally, the appropriate contact people at the Department of Ecology and other agencies should be identified. I recognize that personnel changes will occur over the life of the landfill closure.

Sincerely,

A handwritten signature in black ink, appearing to read "Wang".

Ching-Pi Wang  
Project Manager

CW:kt  
daily:cw-jn.let

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